3

USSR

Preparation of [illegible] ... and S. [illegible] ... 1954, No. [illegible] ... hydro-3,6-pyridazinedione ... [illegible] ... yield from ... [illegible] ... hydrazine hydrate (III) in 250 ml. glacial AcOH first at 50° then boiling a short time. Soly. of I in water at 20° was 0.25%, at boiling 2.5%; it was insol. in EtOH, Et₂O, benzene, and $CHCl_3$. The aq. soln. reacted as a strong monobasic acid. Aq. solns. of I gave purple coloration with $FeCl_3$, a white amorphous ppt. with $Ag(NH_3)_2$ soln., [illegible] green ppt. with ... NH_3 soln., and white ppt. with ... sulfate soln. ... [illegible] ... II reacts with III ... the hydrazone ... [illegible]

... $C:NNH_2$, since in II the neg. ends of the mol. dipole are at the carbonyl O and are attacked by the ... charged hydrazine ... [illegible]

... [illegible] ... Andrew [illegible]

DINKELS, L.

USSR.

Use of maleic hydrazide as herbicide. E. Dunkels and A. Eglite. *Latvijas PSR Zinatnu Akad. Vestis* 1954, No. 11(Whole No. 88), 57–61(in Russian; Latvian summary, 62).—1,2-Dihydro-3,6-pyridazinedione (maleic hydrazide) was active as herbicide on all weeds and plants tested. At low concns., it arrested the growth temporarily; at higher concns., chlorosis and death of plants followed. In form of the triethanolamine salt, the compd. suggested as an effective herbicide in dosage of 1000 l. of 0.5% soln. per ha.

Andrew Dvornikoff

Delay of rooting (in storage) of potatoes by maleic hydrizide. E. Dunkels, E. Baumanis, and T. Smilgis. *Latvijas PSR Zinātņu Akad. Vēstis* 1955 No. 7 [illegible] (in Russian; Latvian summary).—Potato plants were [illegible] with solu. of maleic hydrazide [illegible] rate of 1.5-2 kg. in [illegible] the collection of crop [illegible] of the tubers [illegible] be stored until the next season without [illegible] and were suitable for all purposes except seeding. [illegible] prevent budding of the sprouts, but arrested their [illegible] growth. The wt. and starch loss in storage was decreased by a factor of 2-3, vitamin C content was preserved, and metabolism during the storage was slowed down. A. Ivanov

DUNKEN, H.; MIKKELEIT, W.; HAUCKE, G.

Spectrochemical analysis of H_2O-D_2O mixtures with the aid of band spectra. Glas Hem dr 29 no.9/10;429-438 '63.

1. Institute of Physical Chemistry of the Friedrich-Schiller University, Jena, German Democratic Republic.
Submitted December 6, 1963.

TURCIN, R., Dr.; DUNKIC, D., mr.

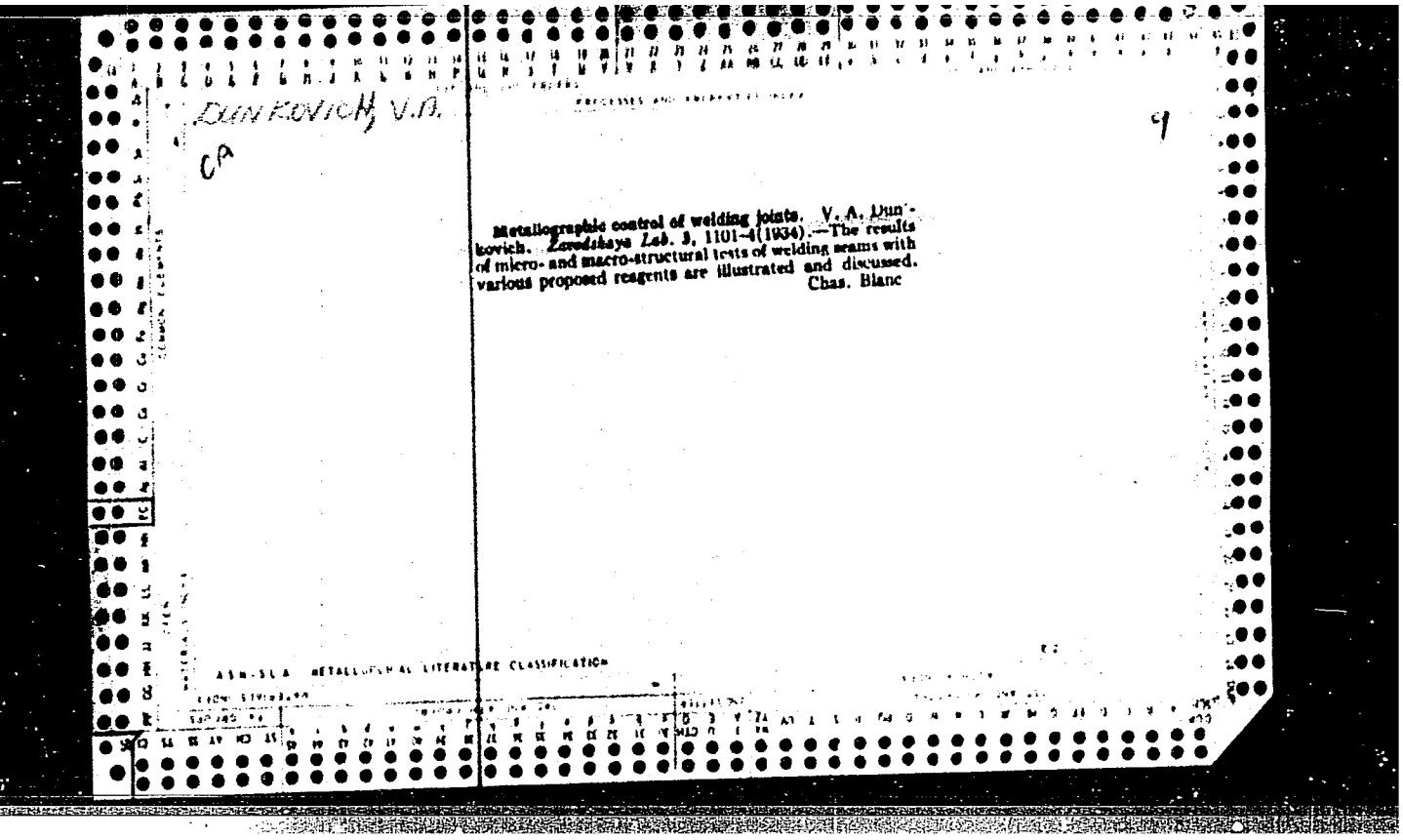
Hypnotics in the past and present. Lijec. vjes. 78 no.7-8: 309-315 1956.

1. Iz Bolnice za zivcane i dusevne bolesti u Vrapcu.
(HYPNOTICS AND SEDATIVES, ther. use
indic. (Ser))

DUN'KOVA, T.I.

V 371 Cygni. Per.zvezdy 14 no.1:58-59 Ja '62. (MIRA 17:3)

1. Otdel peremennykh zvezd Moskovskogo otdeleniya Vsesoyuznogo astronomo-geodezicheskogo obshchestva.



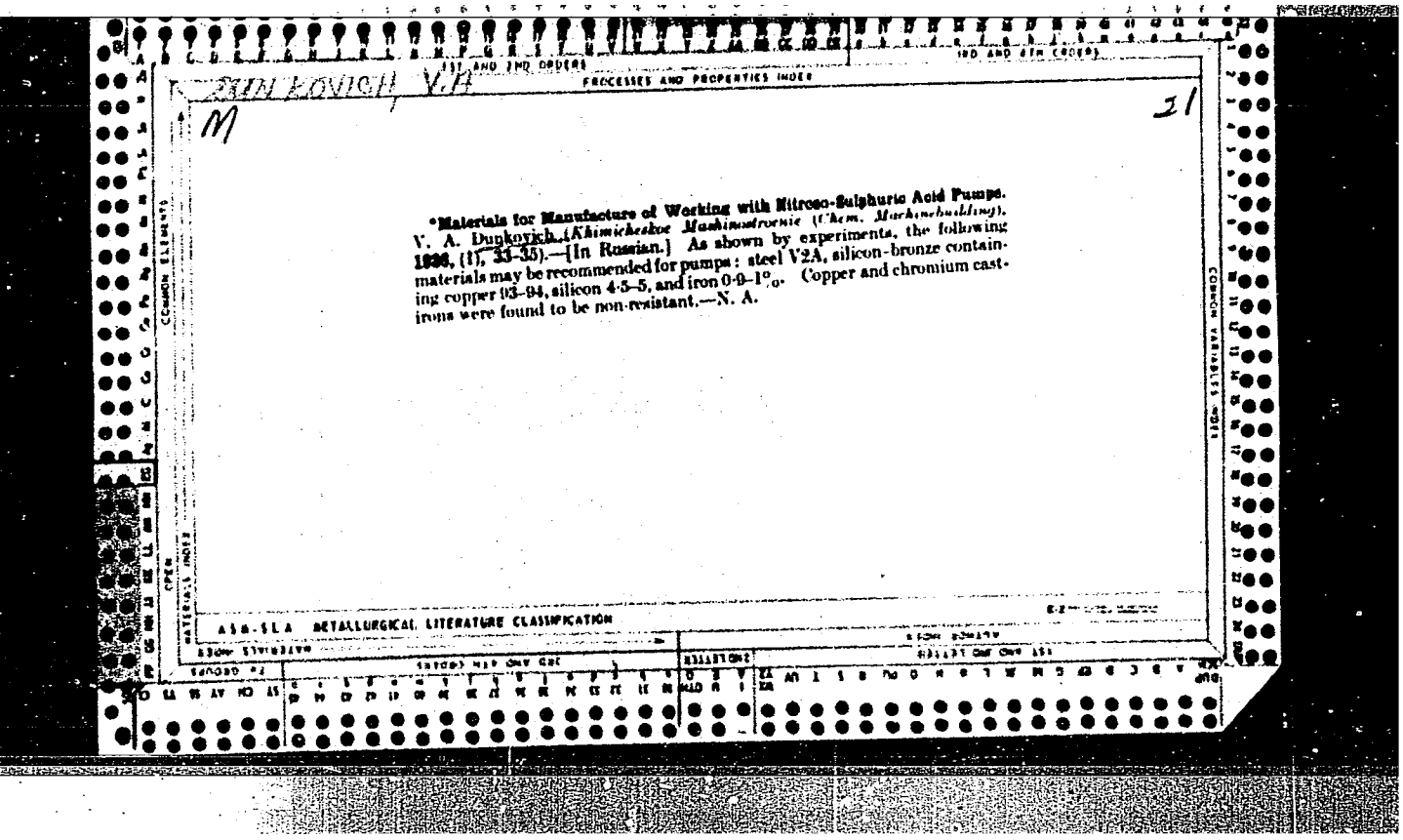
DUNKOVICH, V.A.

CA

9

Metallographic control of welding joints. V. A. Dunkovich. *Zavodskaya Lab.* 3, 1101-4(1934).—The results of micro- and macro-structural tests of welding seams with various proposed reagents are illustrated and discussed.
Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

31

•**Materials for Manufacture of Working with Nitroso-Sulphuric Acid Pumps.** V. A. Dunkovich. (*Khimicheskoe Mashinostroenie* (*Chem. Machinebuilding*), **1936**, (1), 33–35).—[In Russian.] As shown by experiments, the following materials may be recommended for pumps: steel V2A, silicon-bronze containing copper 93–94, silicon 4·5–5, and iron 0·0–1%. Copper and chromium cast-irons were found to be non-resistant.—N. A.

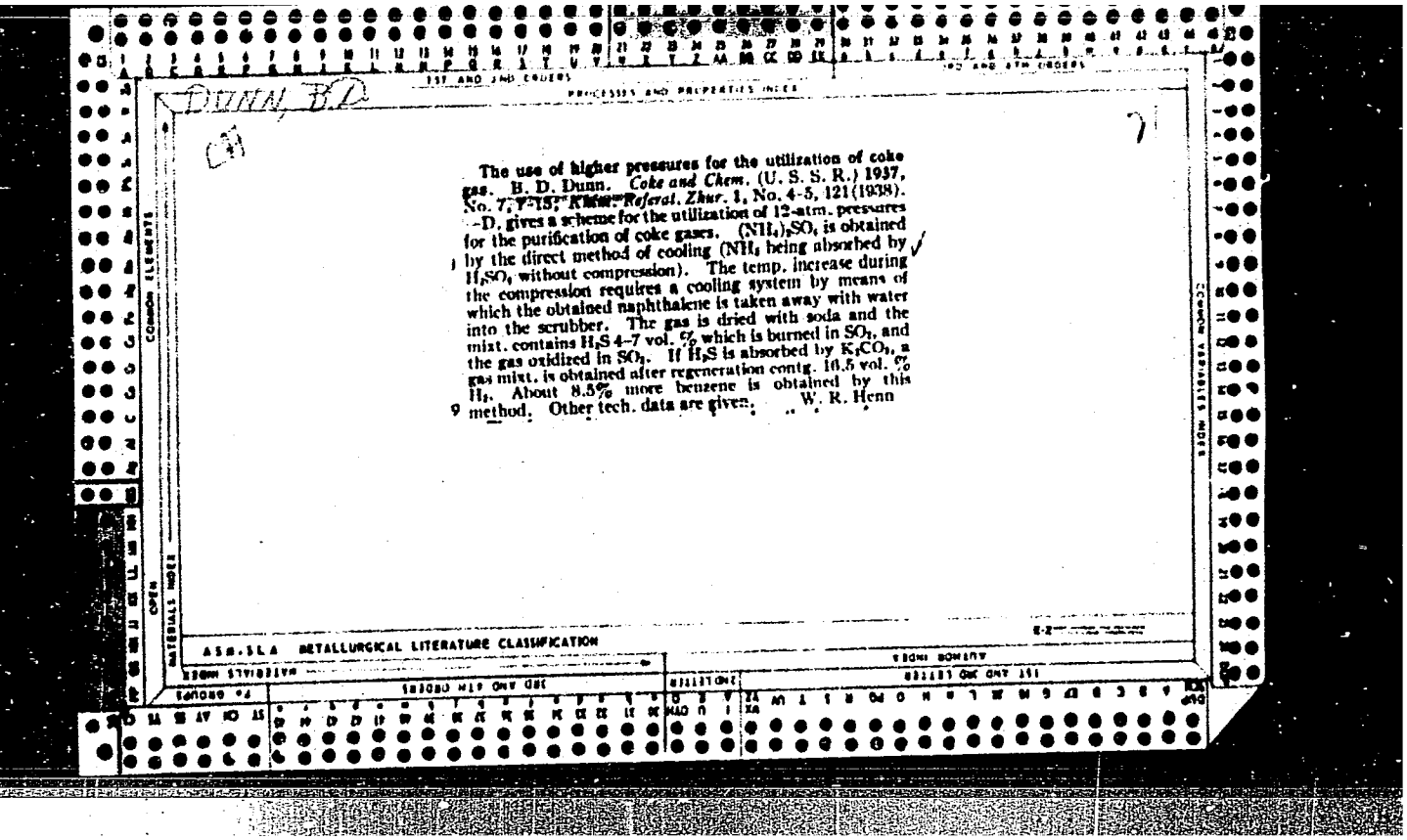
A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

DUNMAN, J.

"Mechanization in British agriculture"

Za Sotsialisticheskuiu Selkohoziaistvennuiu Nauku. Praha, Czechoslovakia. Vol. 7, no. 2, 1958

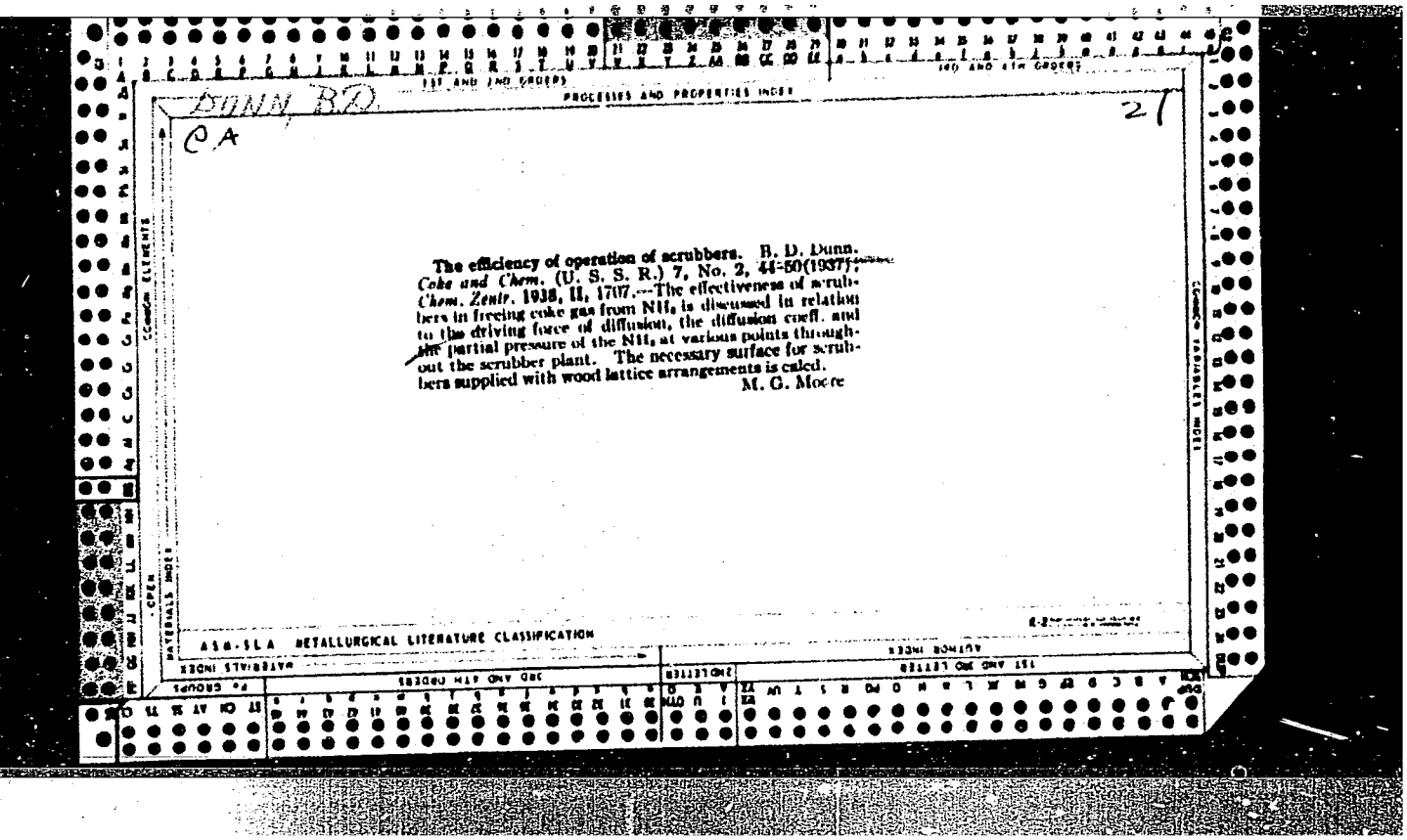
Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas



DUNN, B.D.

The use of higher pressures for the utilization of coke gas. B. D. Dunn. *Coke and Chem.* (U. S. S. R.) 1937, No. 7, 7–15; *Referat. Zhur.* 1, No. 4–5, 121(1938). —D. gives a scheme for the utilization of 12-atm. pressures for the purification of coke gases. $(NH_4)_2SO_4$ is obtained by the direct method of cooling (NH_3 being absorbed by H_2SO_4 without compression). The temp. increase during the compression requires a cooling system by means of which the obtained naphthalene is taken away with water into the scrubber. The gas is dried with soda and the mixt. contains H_2S 4–7 vol. % which is burned in SO_2, and the gas oxidized in SO_3. If H_2S is absorbed by K_2CO_3, a gas mixt. is obtained after regeneration contg. 10.5 vol. % H_2. About 8.5% more benzene is obtained by this method. Other tech. data are given. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



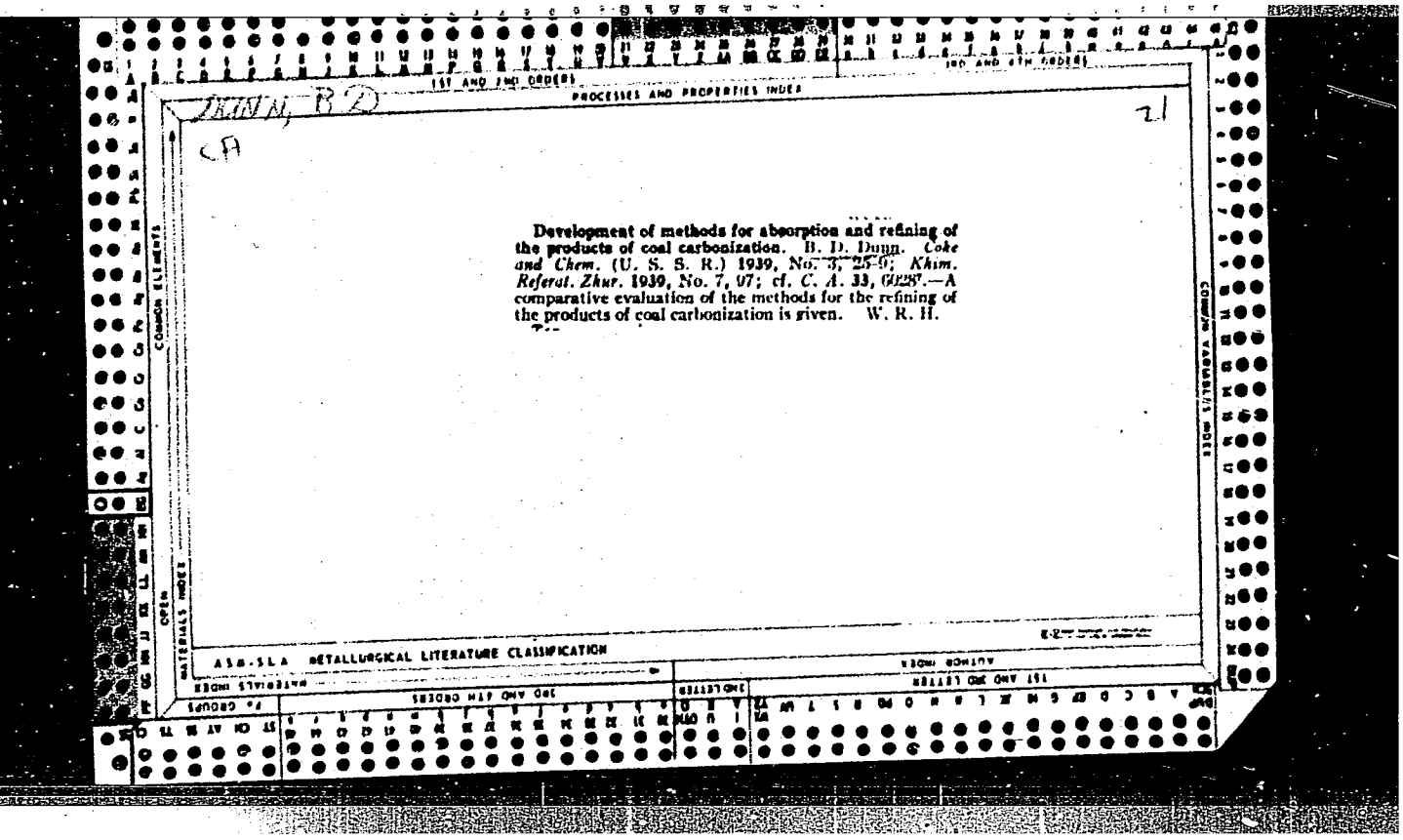
DUNN, B.D.

CA

21

The efficiency of operation of scrubbers. B. D. Dunn. *Coke and Chem.* (U. S. S. R.) 7, No. 2, 44-50(1937); *Chem. Zentr.* 1938, II, 1707.—The effectiveness of scrubbers in freeing coke gas from NH_3 is discussed in relation to the driving force of diffusion, the diffusion coeff. and the partial pressure of the NH_3 at various points throughout the scrubber plant. The necessary surface for scrubbers supplied with wood lattice arrangements is calcd.

M. G. Moore



Development of methods for absorption and refining of the products of coal carbonization. B. D. Dunn. *Coke and Chem.* (U. S. S. R.) 1939, No. 3, 25-9; *Khim. Referat. Zhur.* 1939, No. 7, 97; cf. *C. A.* 33, 6028⁷.—A comparative evaluation of the methods for the refining of the products of coal carbonization is given. W. R. H.

1ST AND 2ND ORDERS | 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

BC

A-3

Microscopy of the amino-acids and their compounds. IV. Picrolonates. R. Dunn, K. Ireovre, and P. L. Kirk (Mikrochem., 1939, 154—160; cf. A., 1937, II, 3[illegible]4).—Characteristic crystal habits and optical data are described for the salts of picrolonic acid with 27 NH_2-acids. The predominant crystal habit is acicular, the needles being usually arranged in rosettes. In nearly all cases the *n* of the crystals can serve for identification. J. W. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

A. C. S
DUNOYER, L.

Electrical resistance of thin aluminum layers deposited on glass by thermal evaporation. Louis Dunoyer. *Compt. Rend.*, 220 [26] 907-909 (1945).—The electrical resistance as a function of the thickness cannot be exactly expressed by a formula; it has the shape of the hyperbola of Pogany, but for a thickness of about 0.9 mμ the resistance seems to become infinite. This same phenomenon has also been found for very thin layers of other metals chemically deposited. M.HA.

DUNOVSKY, J.

Our experiences with the use of Septonex in the control of staphylococcal infections in newborn infants. Cesk. pediat. 18 no.12:1119-1123 D'63.

1. Detske oddeleni UNZ ve Vlasimi.

DUNROV, Ya.A.

Bessel's functions and orthogonal polynomials as carriers in communication systems. Avtom.kont. i izm.tekh. no.5:46-54 '61. (MIRA 14:11)

(Communication)

DUNSKAYA, I. M.

178T106

USSR/ Physics - Mass Radiator 1 Feb 51

"Automatic Mass Radiator," V. K. Arkad'yev, Corr Mem, Acad Sci USSR, I. M. Dunskaya, Moscow State U imeni M. V. Lomonosov.

"Dok Ak Nauk SSSR" Vol LXXVI, No 4, pp 513, 514

Consists of glass container resembling hourglass. It contains aluminum filings falling from upper to lower container and passing between 2 electrodes emitting vertical spark. Optimum conditions found to be 6 mm for diam of flow, 65 cm^3 amount of filings and 0.5 mm dimensions of grains. Submitted 16 Dec 50.

178T106

MIRZOYEV, G.G.; DUNSKAYA, L.M.

Criteria of the pathogenicity of Escherichia coli. Zhur. mikrobiol.; epid. i immun. 41 no.6:134 Je '64.

(MIRA 18:1)

1. Sanitarno-epidemiologicheskaya stantsiya No.14 i Uzlovaya bol'nitsa No.9 Severnoy zheleznoy dorogi, stantsiya Pechora.

DUNSKIY, I.I., red.

[Instructions 109-55 po poverke ul'traoptimetrov. Izd. ofitsial'-
noe. Moskva, 1956. 14 p. (MIRA 14:5)

1. Russia (1923- U.S.S.R.) Komitet standartov, mer i izme-
ritel'nykh priborov.
(Optical instruments--Testing)

DUNSKIY, I.I., red.

[Instructions 108-55 for checking vertical and horizontal optical indicators] Instruktsiia 108-55 po poverke vertikal'nykh i gorizontal'nykh optimetrov. Izd. ofitsial'noe. Moskva, 1957. 23 p. (MIRA 14:5)

1. Russia (1923- U.S.S.R.) Komitet standartov, mer i izmeritel'nykh priborov.
(Optical instruments--Testing)

DUNSKIY, V.

Minimum permissible temperature of slag on the surface of a liquid film in a vertical furnace. Inzh.-fiz. zhur. no.3:152-154 Mr '60.
(MIRA 13:10)

(Slag)

DUNSKIY,V.D., inzhener

Operation of the boiler at the Minsk Margarine Plant. Masl.-zhir. prom.20 no.5:36-37 '55. (MLRA 8:11)

1. Minskiy margarinovyy zavod
(Boilers)

06566

11(1) SOV/170-59-9-7/18

AUTHOR: Dunskiy, V.D.

TITLE: On the Thickness of the Heat Insulating Layer in a Vertical Cyclone Furnace

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 9, pp 52-61 (USSR)

ABSTRACT: This paper describes a method of calculating the thickness of the heat insulating layer covering the internal surface of a cyclone furnace and its component parts: the liquid film of slag and the immovable layer. The derivation of the equation for determining the thickness of the liquid film of slag is analogous to the Nusselt solution [Ref 4] which dealt with the thickness of the condensate film on a flat vertical wall, if the coefficient of slag viscosity is assumed to be constant. However, the slag viscosity is variable, and depending on the rate of viscosity change with a change in temperature, slags are of two kinds: "long" and "short". The visible flow of the "long" slags begins at a viscosity of about 800 poise, and that of the "short" slags at about 500 poise. The final expression for the thickness of the slag film is given by Formula 20 or by a simplified Formula 21 in which its dependence on various factors, such as its specific weight, viscosity, the ash content of the fuel, etc,

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On the Thickness of the Heat Insulating Layer in a Vertical Cyclone Furnace

can be seen. The thickness of the immovable layer is given by Formula 25, and the entire thickness of the heat insulating layer by Formula 26. The solution found is an approximate one, as some simplifying assumptions were made during its derivation: the laminar nature of the liquid slag flow, the negligible amount of the friction of the vortical stream against the slag surface, etc. Then the author analyzes the effect of various condition factors and quality of ash on the change in the thickness of the liquid slag film and of the whole heat insulating layer on a numerical example. It is concluded that the functioning of the furnace operating on a fuel which has "short" slag becomes unstable at a slag temperature on the surface of the liquid film below 1,400°C. The functioning is stable, if the fuel has the "long" slag.
There are: 3 graphs, 1 schematic diagram and 8 references, 5 of which are Soviet and 3 German.

ASSOCIATION: Institut energetiki AN BSSR (Institute of Power Engineering of the AS BSSR), Minsk.

DUNSKIY, V.D.

Combustibility of upland and lowland peat in cyclone furnaces with liquid slag disposal. Insh.-fiz.zhur. no.12:90-93 D '59. (MIRA 13:4)

1. Institut energetiki AN BSSR, Minsk.
(Peat) (Combustion)

DUNSKIY, V. D., Cand Tech Sci -- (diss) "Research into some physico-chemical properties of peaty slags applicable to conditions of slag removal in cyclonic furnaces." Minsk, 1960. 17 pp; (Belorussian Polytechnic Inst im I. V. Stalin); 150 copies; price not given; (KL, 25-60, 131)

DUNSKIY, V.D.

Mechanism of heat transfer between the surface and the stirred bed of dispersed materials in a vacuum. Inzh.-fiz. zhur. 7 no.2:66-70 F '64. (MIRA 17:2)

1. Institut teplo- i massoobmena AN BSSR, Minsk.

ACCESSION NR: AP4012795 S/0170/64/000/002/0066/0070

AUTHOR: Dunskiy, V. D.

TITLE: Heat exchange mechanism between a surface and a stirred bed of dispersed material in vacuum

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 2, 1964, 66-70

TOPIC TAGS: heat exchange, dispersed layer, heat conduction, heat radiation

ABSTRACT: Heat exchange in vacuum between a surface and a layer of dispersed material takes place within a sublimation dryer, in heat insulating coverings, etc. Particles may get displaced because of mechanical shifts or some other causes, e.g., vibrations. The heat exchange mechanism is temperature dependent since with an increase in temperature the pressure limit for the occurrence of the free-molecular conditions for the rarefied air enclosed between the surface and the first layer of particles becomes shifted towards higher pressures due to the increase in the mean free paths of molecules. Also, the heat exchange between the surface and the first layer of particles is more intensive when the particles move than when they are fixed; the displacements increase the temperature drop through

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ACCESSION NR: AP4012795

a continuous arrival at the surface of particles originating from the bulk of the layer which is at a lower temperature. The author estimates the time during which the particles on the heater surface change the temperature drop between the first row of particles and the surface by 5% of the original temperature drop ΔT_0. As far as the heat transfer is concerned, the changes in the processes between the further rows of particles may be neglected since within this problem the temperature of the first row is allowed to vary by only the above-mentioned 5%. The heat transfer can be due to the heat conductivity of the gas or to radiation. The results of the temperature drop calculations are summarized in Fig. 1 of Enclosure 1 and they show that the radiant heat transfer rate for any temperature drop is considerably greater than the heat transfer by heat conduction of a gas, and that the highest possible coefficient is obtained at rather low particle velocity. The author compared his heat transfer results with the experimental data by F. H. Garner et al. (Chemical Age of India, 12, Sept., Okt., 1961) and found a satisfactory agreement. Orig. art. has 2 figures and 11 equations.

ASSOCIATION: Institut teplo- i massoobmena AN BSSR, Minsk (Institute of Heat Exchange and Mass Transfer)

Card 2/4

DUNSKIY, V. D.

"Investigation of heat transfer between a surface and a bed of mixed dispersed material."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Heat and Mass Transfer, AS BSSR.

DUNSKIY, V.F.; PAYKIN, D.M.

High-power mist sprayer. Zashch.rast.ot vred. i bol. 4 no.4:15-16 '59.
(MIRA 16:5)
(Spraying and dusting equipment)

DUNSKII, V. F.

"Existing Methods for Making Aerosols, Efficiency, Production, and Elements of Calculation of Aerosol Machines," Tr. XXI Plenuma (VASKhNIL) (Works of the 21st Session of the All-Union Academy of Agricultural Sciences imeni Lenin) (a book), Sel'khozgiz, M, 1953, pp 157-173

Discusses both mechanical and condensational processes for producing liquid aerosols. Medium and low dispersion mists are best produced using mechanical dispersion with centrifugal jets or by using low air pressure. It is necessary to use either the condensation process of high pressure steam dispersion for the production of aerosols. (RZhKhim, No 23, 1954) SO: Sum.No. 713, 9 Nov 55

DUNSKIY, V.F.

USSR/Agriculture - Spraying

Card 1/1 Pub. 77 - 13/23

Authors : Paykin, D. M., Cand. Agri. Sci.; and Dunskiy, V. F., Cand. Tech. Sci.

Title : Gas duster

Periodical : Nauka i Zhizn' 21/10, page 30, Oct 1954

Abstract : A description is given of an apparatus for blowing powdered insecticides over a field, the novelty of the device consisting in the fact that it uses the exhaust gases from the engine of the truck instead of a separate compressor to blow out the powder. Illustrations.

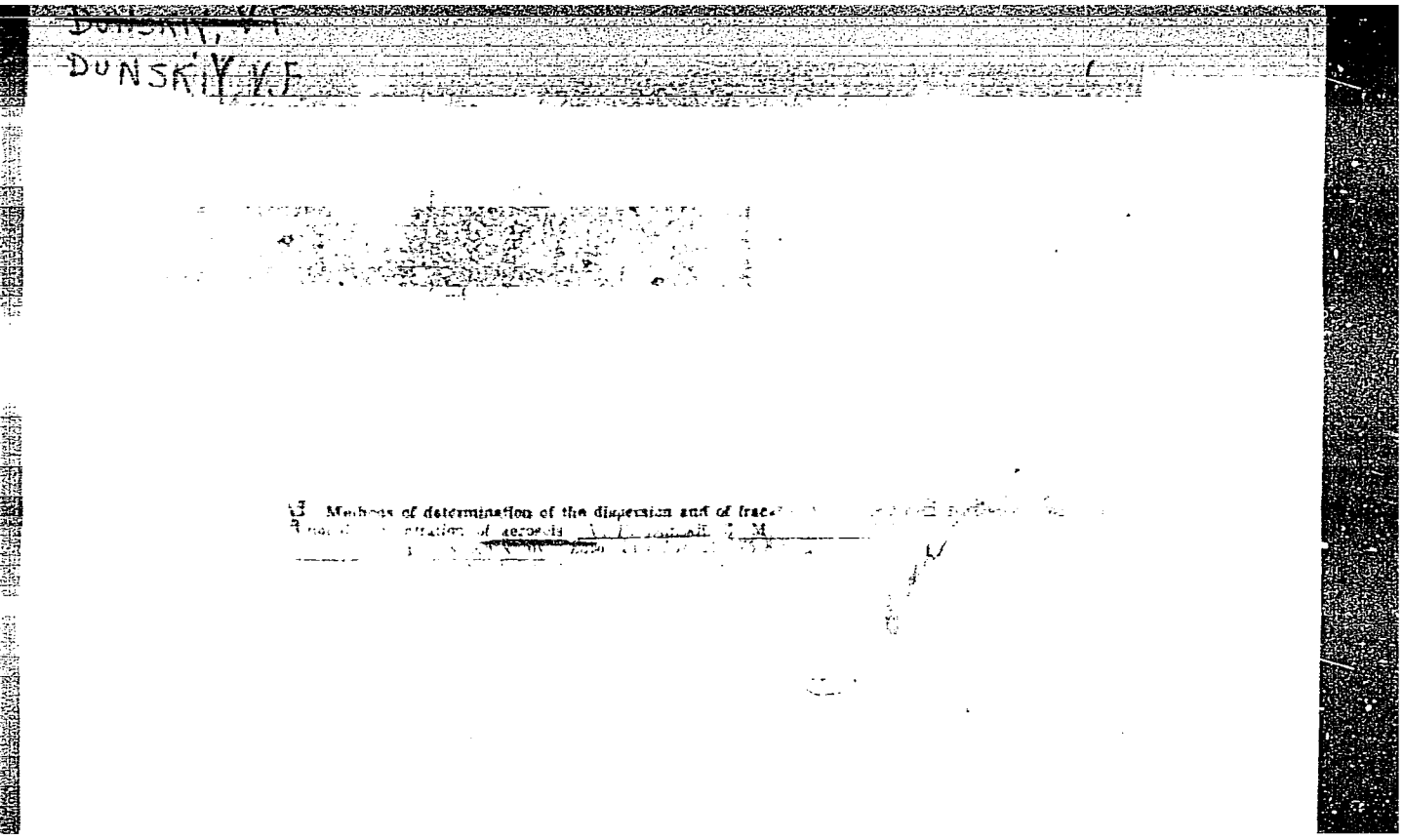
Institution : ...

Submitted : ...

DUNSKIY, V. F. Insecticidal fogs

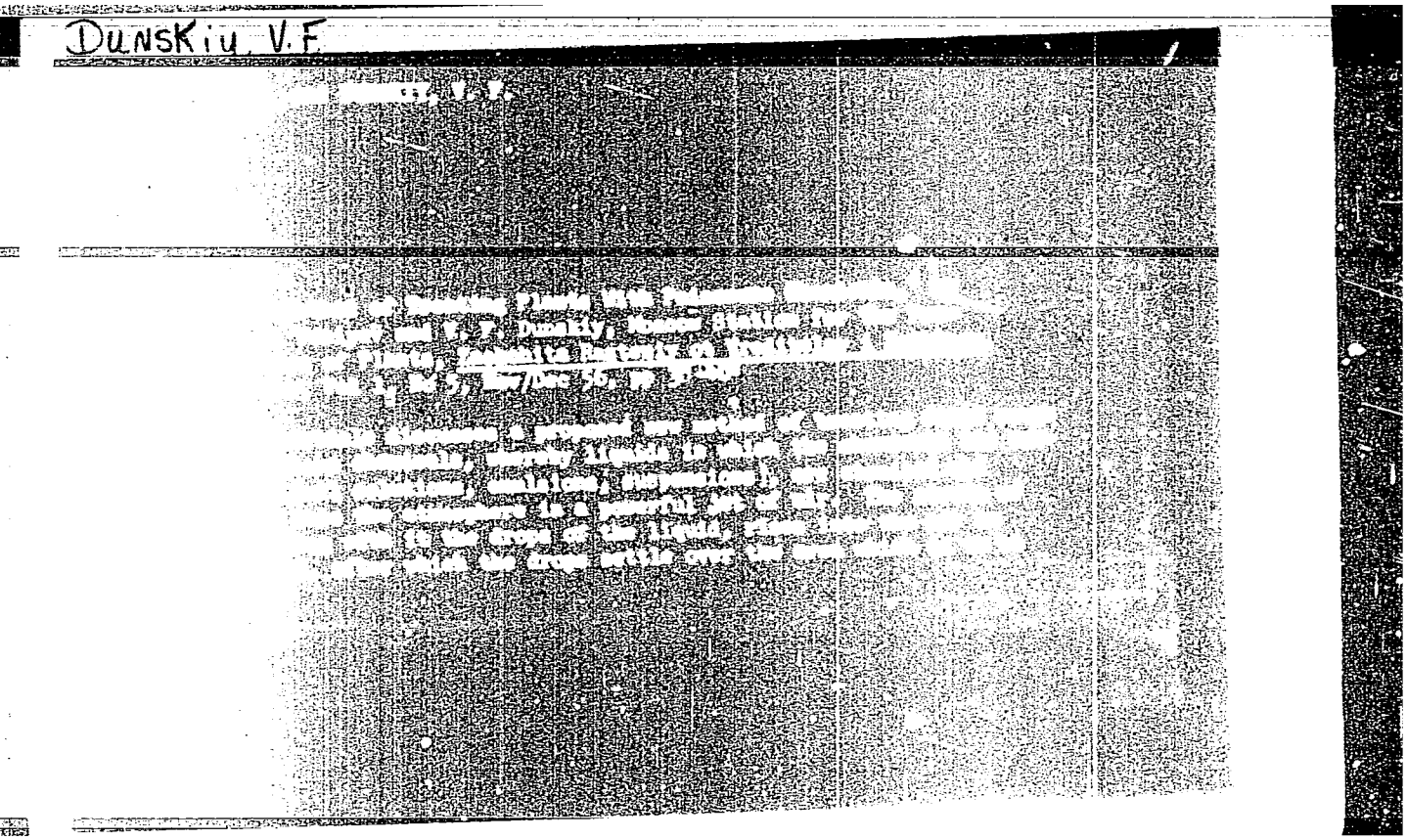
"Regulating the Degree of Insecticidal Fogs"

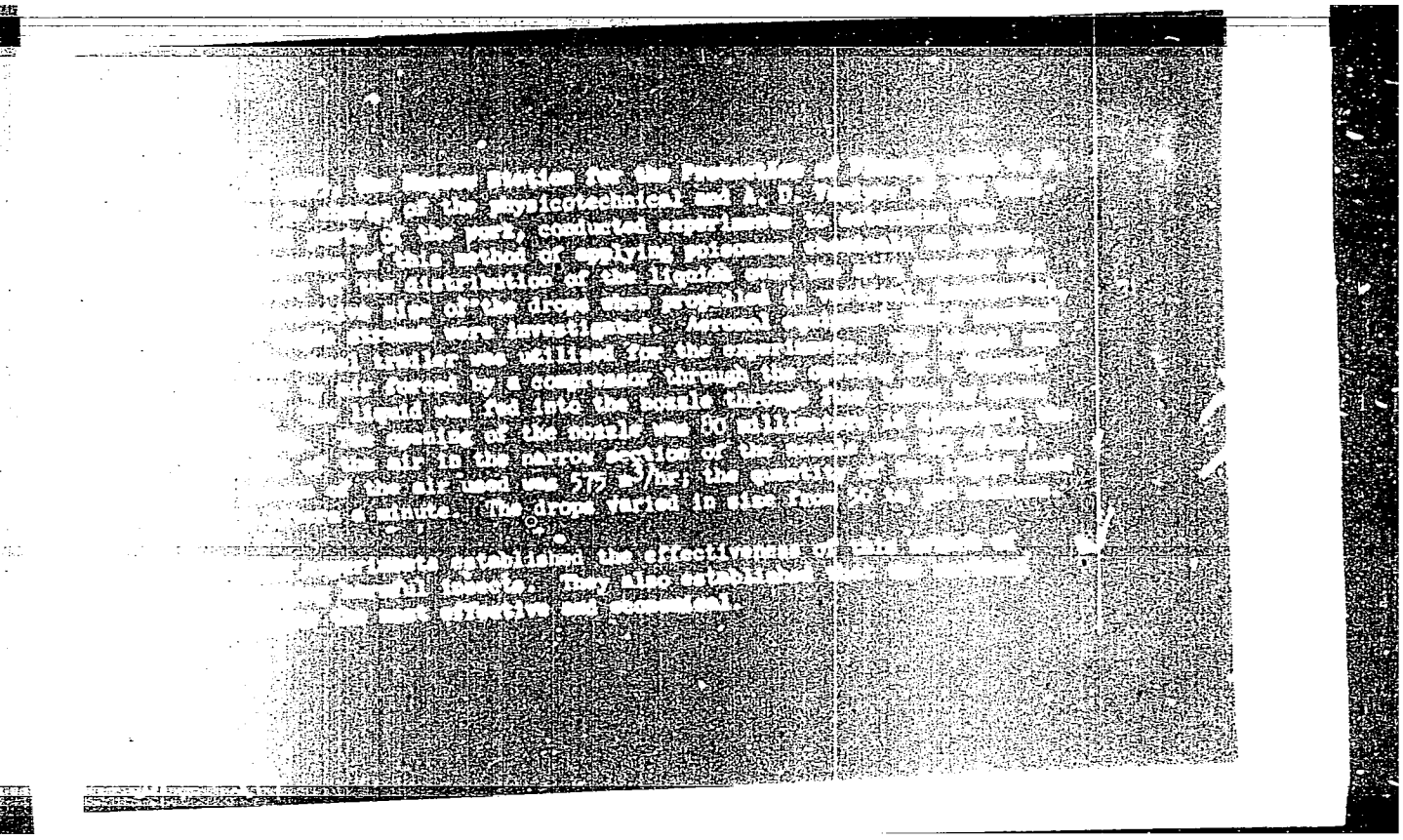
Sel'khozmashina, October 1955



DUNSKIY, V.F.

Trajectories of thermal air jets near the ground. Zhur.tekh. fiz.25 no.14:2501-2510 D '55. (MLRA 9:2)
(Atmospheric temperature) (Air jets)





DUNSKIY, V.F.

Effect of the meteorological factor and the vegetation cover on the occurrence of aerosols in the lowest atmospheric layer. Meteor.i gidrol. no.4:24-28 Ap '56. (MLRA 9:8)
(Aerosols)

Dunskiy, V.F.

USSR / General and Special Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 3, 1958, 11703

Author : Vaniyev A.D., Dunskiy V. F.
Inst : Not given
Title : A New Method of Treating Plants with Poison-Chemicals.

Orig Pub: Zashchita rast. ot vredit. i boleznei, 1956, No 5, 38-40

Abstract: In an experimental aerosol set-up the liquid dispersion was done with air (without heating) forced through a Venturi cap by a compressor. The liquid was conveyed into the narrow section of the cap with a gear pump and broken up into small drops. The treatment was carriedout by the aid of a side wind. When the stream was horizontal the oily solution settled irregularly in a belt 30 m width; when the stream was vertical the stream was distributed in a

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USSR / General and Special Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 3, 1958, 11703

Abstract: belt 60-80 m in width. When the mist stream was much stronger, the height of the ascent of the drops and the width of their enclosure increased. 60% of the liquid on the average settled in a belt 150 m in width. The treatment was possible at a wind velocity of 1-6 m in 1 second. On tomatoes against the carrier- bindweed cicada- and on cabbage against fleas the treatment with a 8% solution of DDT in diesel fuel of 5-10 l/ga by the vertical stream method was more effective, than the treatment with a DDT thermal aerosol in the same concentration. Two workers sprayed 20-30 hectares in one hour.

Card 2/2

DUNSKIY, V.F

USSR/Physical Chemistry - Colloid Chemistry. Disperse Systems B-14

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4068

Author : Dunskiy V.F.
Title : Concerning Coagulation on Spraying of Liquid

Orig Pub : Zh. tekhn. fiziki. 1956, 26, No 6, 1262-1268

Abstract : On spraying of liquid the process of disintegration of the jet and formation of polydispersed system of drops is accompanied by the reverse process of orthokinetic coagulation (OC), due to accelerated orderly motion of drops. An integral equation of OC is derived for a steady monomimensional gaseous flow, which is numerically solved for typical conditions. Experiments were carried out on spraying (in a Venturi nozzle) of several jets of liquid (transformer oil), varying their number but maintaining constant the spraying conditions of each jet.

Card 1/2

USSR/Physical Chemistry - Colloid Chemistry. B-14
Disperse Systems

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4068

Results of calculations and experiments indicate, in the opinion of the author, the considerable effect of coagulation on quality of spraying at high velocities and low specific expenditures of the spray producing gas.

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KOULA, Vatslav [Koula, Václav], doktor, inzh.; DURASOVA, Milada, inzh.; UMNOV, M.P., kand. sel'skokhozyaystvennykh nauk, [translator],; DUNSKIY, V.F., red.; BELEVA, M.A., tekhn. red.

[Aerosols in plant protection] Aerozoli v zashchite rastenii. Moskva, Izd-vo inostr. lit-ry, 1957. 117 p. [Translated from the Czech]. (MIRA 11:11)

(Aerosols)
(Spraying and dusting in agriculture)

DUNSKIY, V. F.

AUTHOR: DUNSKIY, V.F.

TITLE: Trajectory of Warm Stream in Atmospheric Ground Layer. (Trayektorii teplykh struy v prizemnom sloye atmosfery, Russian) PA - 3560

PERIODICAL: Zhurnal Tekhn.Fiz. 1957, Vol 27, Nr 5, pp 1056-1063 (U.S.S.R.)

ABSTRACT: This problem was investigated by the author in Zhurnal Tekhn. Fiz. 1955, Vol 25, Nr 14, p 2501. In 1955 the results of this investigation were experimentally checked by the Moscow station for plant protection. Tests were carried out in the district of Krasnodar (North Caucasus) in a plain with low sparsely growing grass (airfield). The distance to the nearest houses and trees was more than 500 m. In order to facilitate the investigation of the form of the trajectories, tests were carried out by means of an aerosol beam. The aerosol was obtained with the help of an EAU-[illegible] generator from mineral oil. The mode of operation of the generator (air consumption, liquid consumption, gas temperature) was fixed and the aerosol beam and the length were photographed. At the same time air temperature and the wind velocity were measured in a distance of 0,5 and 2 m from the ground. The diameter of the output piece of the generator was 80 mm. The following measurements

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Trajectory of Warm Stream in Atmospheric Ground Layer. PA - 3560

were carried out: in the case of a strong wind: 4,4 m/sec average velocity in a height of 2 m, at 1,45 m/sec, 0,75 m/sec in the case of windstillness. There was good agreement between experimental and theoretical results. (With 11 Illustrations and 3 Slavic References).

ASSOCIATION: Moscow Station for Plant Protection
PRESENTED BY:
SUBMITTED: 9.5.1956
AVAILABLE: Library of Congress

Card 2/2

DUNSKIY, V.F., kand. tekhn. nauk; FUNIKOV, A.F., kand. tekhn. nauk.

Tests for helicopters with aerosol generators. Zashch. rast. ot vred. i bol. 3 no.3:20-21 My-Je '58. (MIRA 11:6)
(Aeronautics in agriculture) (Aerosols)

DUNSKIY, V.F.; KITAYEV, A.V. (Moskva)

Electrostatic spraying. Zashch. rast. ot vred. i bol. 3 no.4:17-18 Jl-Ag '58. (MIRA 11:9)
(Spraying and dusting equipment)

30(1) SOV/19-59-2-445/600

AUTHORS: Dunskiy, V.F. and Kitayev, A.V.

TITLE: A Generator for the Inductive Charge of Fog Particles With Ions for Fighting the Pests and Diseases of Agricultural Plants

PERIODICAL: Byulleten' izobreteniy, 1959, Nr.2, p 94 (USSR)

ABSTRACT: Class 45, 4_{35}. Nr 117403 (592144 of 14 February 1958). 1) A charging generator, designed for the inductive charging of pesticide ("popal'") fog. It contains a grounded disc or cone, and an insulated ring with a contact for the electric charge. To obtain the finest fog drops, and to improve the charge feed by the drops by induction, the grounded disc is brought into rotation, and its rim is surrounded with a ring installed in a blast pipe and carrying the negative charge. 2) To reduce the film thickness, and to prevent it collecting on the insulated charged ring, the pesticide

Card 1/2

A Generator for the Inductive Charge of Fog Particles With Ions for Fighting the Pests and Diseases of Agricultural Plants

solution is guided to the inside surface of a slightly concave disc through holes in the hollow shaft. 3) To obtain a thin film by an air jet blast upon the surface from a fan or an aircraft, the grounded cone is placed in the outlet end of a pipe.

5(4) SOV/69-21-4-11/22

AUTHOR: Dunskiy, V.F. and Smirnov, N.S.

TITLE: Concerning the Influence of Ionizing Radiation on the Dispersion of Aerosols

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 4, pp 436-441 (USSR)

ABSTRACT: This is a study of the effect of ionizing radiation (γ-quanta of radioactive cobalt, Co60) on the dispersion of aerosols formed by condensation. Figures 1 and 2 (diagrams) give the scheme of the experimental installation. The aerosol was prepared by mixing a heated (400°C) air-vapor mixture with air at a temperature of 17°C. The vapor component was obtained from a high-boiling ($\geq$ 320°C) fraction of transformer oil. The authors first carried out a series of experiments intended to determine the time needed for charging the particles of the aerosol under natural conditions, i.e. without the aid of ionizing radiation. Figures 3 and 4 (graphs) show that the particles of aerosols, which were obtained by condensation, are electrically charged

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Concerning the Influence of Ionizing Radiation on the Dispersion of Aerosols.

only to a limited extent(up to 10%). Ionization under natural conditions develops slowly, particularly in clean air. Tables 3 and 4 show the results of the study of the dispersion of the particles under the effect of ionizing radiation. For the sake of comparions, data obtained without radiation were added. The change in the dispersity of microscopic fog particles was determined by the number of droplets, which settled on 1 cm^2 of surface. Table 3 shows that irradiation gives rise to a coarse-disperse fraction ($r > 2\mu$), which could not be observed prior to the treatment. The changes in the fractions of ultramicroscopic and submicroscopic particles, which were retained in a cotton wool filter, are shown in table 4. As a result of the treatment with ionizing rays, the number of these particles in the filter increased by $\sim$40% as compared with the number of particles obtained without ray treatment. The evaluation of the experiments can be summarized as follows: under natural conditions of air ionization, the charging of fogs

Concerning the Influence of Ionizing Radiation on the Dispersion of Aerosols.

obtained by condensation develops very slowly. As a result of the treatment with γ - quanta Co 60, the dispersion of the microscopic fractions of the fog decreases, whereas there is an increase (40-45%) of the weight of particles of smaller fractions ($r < 7.5 \cdot 10^{-5}$ cm) in the filter. The rate of ionization under the effect of the ray treatment can be evaluated at $5 \cdot 10^{7} - 3 \cdot 10^{3} \pm$ ions/ cm^{3}.sec.. The results of the experiments have confirmed the authors' previous investigations of the effect of varying air ionization on the disperse phase of highly-dispersed aerosols. There are 4 tables, 2 graphs, 2 diagrams and 11 Soviet references.

Concerning the Influence of Ionizing Radiation on the Dispersion of Aerosols

ASSOCIATION: Institut goryuchikh iskopayemykh AN SSSR (Institute of Mineral Fuels of the AS USSR)
Moskovskaya stantsiya zashchity rasteniy (Moscow Station of Plant Protection)

SUBMITTED: 5 February, 1958

Card 4/4

USSR/General and Specialized Zoology - Insects. Harmful Insects and Acarids. Chemical Means in the Control of Harmful Insects and Acarids. P

Abs Jour : Ref Zhur Biol., No 6, 1959, 25416

Author : Vaniyev, A.D., Dunskiy, V.F.
Inst : -
Title : A Nozzle to AG-L6 for Fine Spraying

Orig Pub : Zashchita rast. ot vredit. i bolezney, 1958, No 3, 25

Abstract : The aerosol generators AG-Lb are provided with removable revolving angular nozzle', which the liquid breaks up into small drops of the air which moves with a speed of 130 m per second. The stream of the formed mist is directed upwards, obliquely or horizontally, depending upon the required width of the area. Wherever fine aerial spraying is employed, the generator with the nozzle can be used, applying the same chemicals and rates of outlay, as for example, in the control of pests of sugar beets, of

Card 1/2

USSR/General and Specialized Zoology - Insects. Harmful Insects and Acarids. Chemical Means in the Control of Harmful Insects and Acarids. P

Abs Jour : Ref Zhur Biol., No 6, 1959, 25416

cotton, etc. At an outlay of 50 liters/ha, the productive capacity of the generator is 4 ha per hour. In the control of cabbage pests the effective rate of the outlay of an 8% DDT solution in diesel fuel is only 7-8 liters per hectore, and the area covered at a vertical blast is up to 80 m. -- V.F. Dunskiy

Card 2/2

DUNSKIY, V.F. (Moskva); KITAYEV, A.V. (Moskva)

Precipitation of a unipolar charged aerosol in a closed space.
Koll. zhur. 22 no.2:159-167 Mr-Ap '60. (MIRA 13:8)
(Aerosols)

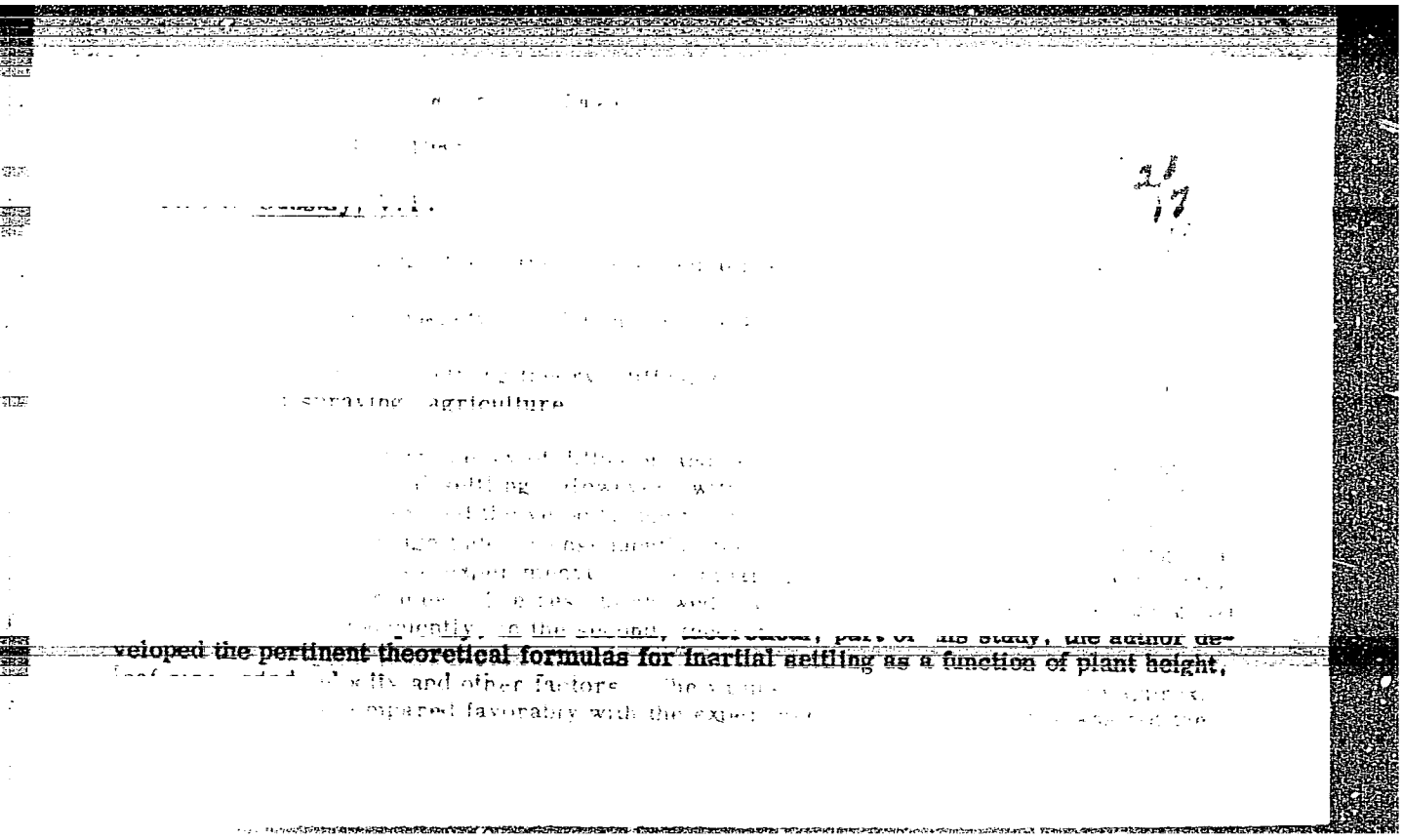
DUNSKIY, V.F.[translator]; KOHRIN, B.B.[translator]; PANKOVA, S.V. [translator]; POPOV, P.V.[translator]; TRYAPITSYN, V.A. [translator]; FADEYEV, Yu.N.[translator]; RUKAVISHNIKOV, B.I., red.; FOMINA, N.O., red.; IOVLEVA, N.A., tekhn. red.

[Contemporary problems of entomology]Sovremennye problemy entomologii; sbornik statei. Pod red. i s predisl. B.I. Rukavishnikova. Moskva, Izd-vo inostr. lit-ry. Vol.2. 1961. 182 p. (MIRA 15:11)

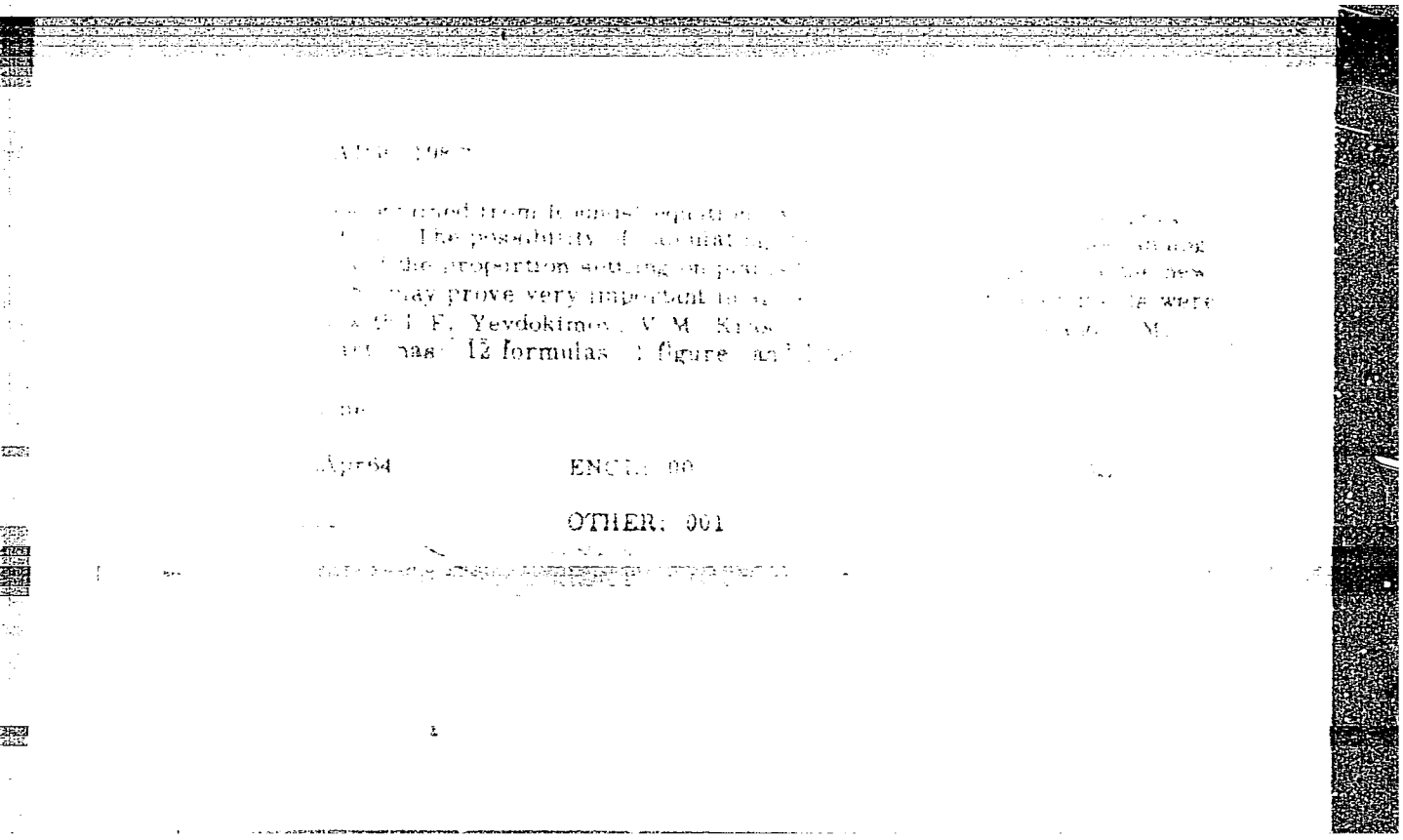
(Insecticides)
(Insects, Injurious and beneficial—Control)

DUNSKIY, V.F.; SIDOROV, A.I.

Existence of an aerodynamic crisis when a stream of light aerosols or gas is allowed to propagate in a closed room. Inzh.-fiz. zhur. 7 no. 3:42-45 Mr '64. (MIRA 17:5)



veloped the pertinent theoretical formulas for inertial settling as a function of plant height,



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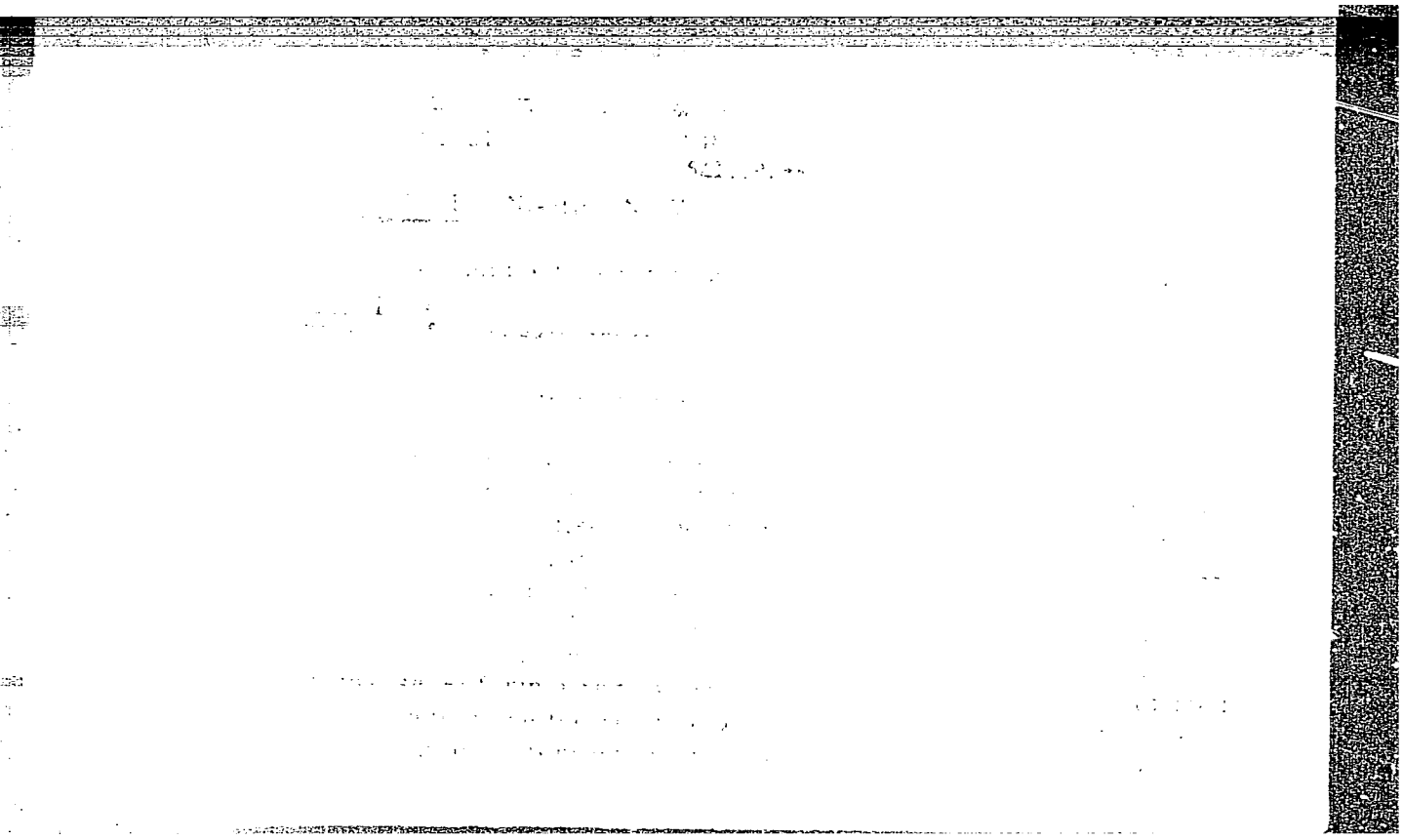

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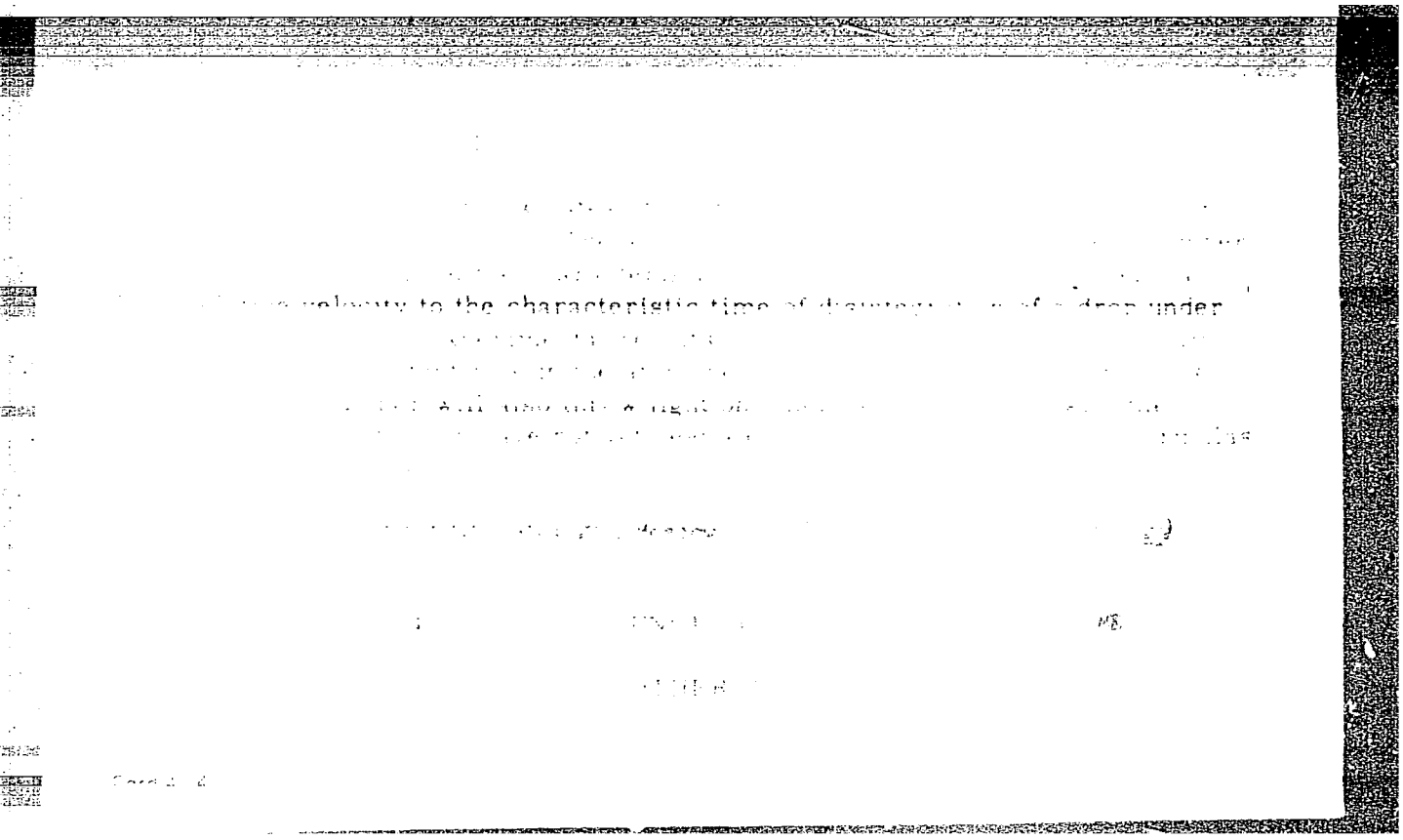
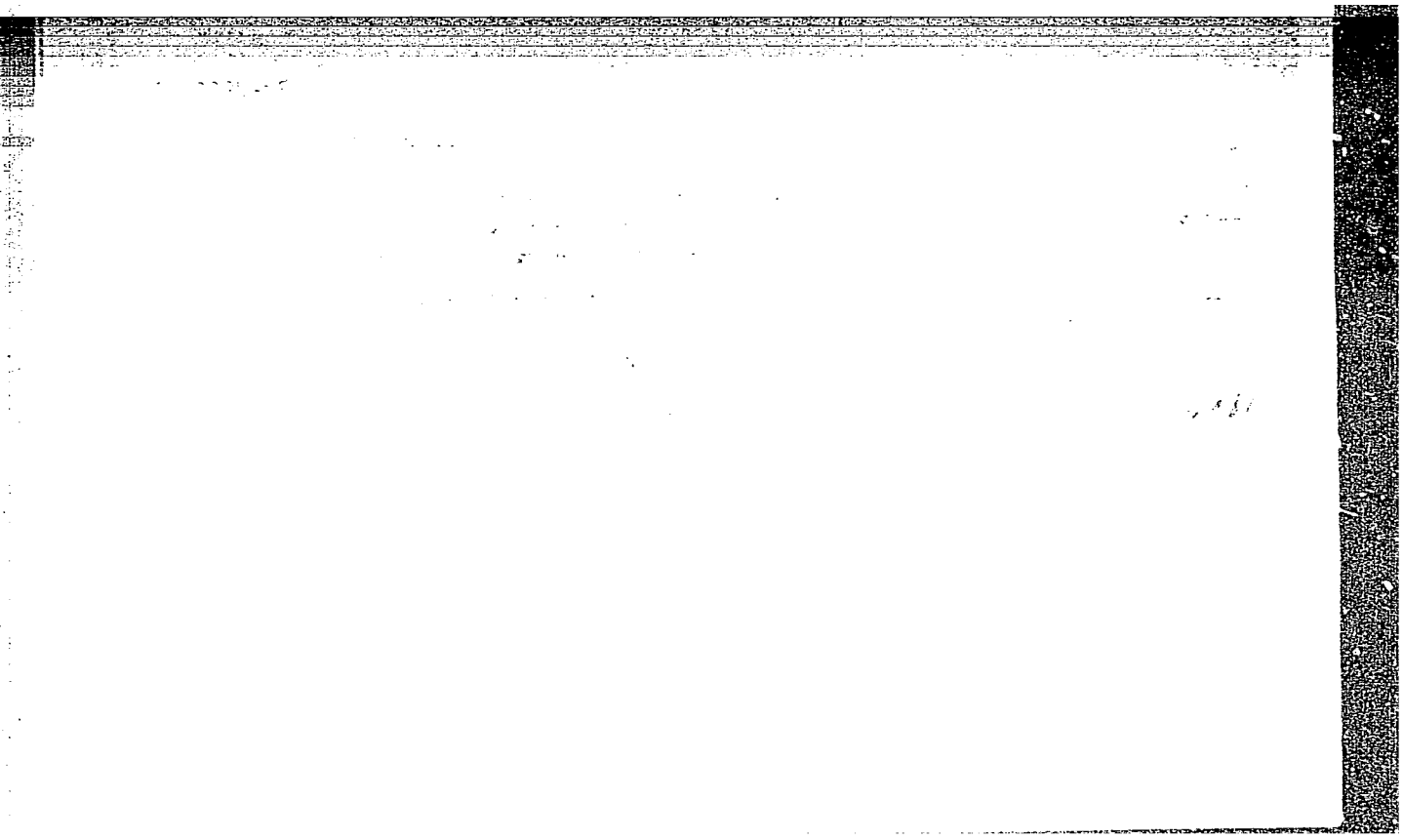


soi capture by vegetation, and a method based on the



APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R000411610006-2"

DUNSKIY, V.F.; YEVDOKIMOV, I.F.; KRASIL'NIKOV, V.M.; MIKULIN, K.P.; YUZHNYY, Z.M.

Settling of a coarsely dispersed aerosol from the surface layer of the atmosphere onto the underlying surface of the earth. Trudy GGO no.172:192-204 '65. (MIRA 18:8)

DUNSKIY, V.F.; YEVSEYEVA, S.A.

Fluctuation of aerosol precipitation. Izv. AN SSSR. Fiz. atm. i okeana 1 no.5:501-508 My '65. (MIRA 18:8)

DUNTOV, F.I.; YEROSALIMSKIY, B.L.

Kinetics of copolymerization of ethylene with vinyl chloride. Vysokom. soed. 7 no.6:1075-1079 Je '65. (MIRA 18:9)

1. Okhtinskiy khimicheskiy kombinat i Institut vysokomolekulyarnykh soyedineniy AN SSSR.

TROFIMOVA, V.I.; SHTEYMAN, R.A.; SHAPIRO, M.S.; MALEVICH, O.A.; ODINTSOV, A.I.; GROZNOV, S.R.; RYBAK, I.A.; SHORIN, G.F.; BELYAKOV, K.M.; SIDOROV, V.A.; VOYTINSKAYA, S.Ye.; DUNTSOVA, K.G.; KHRUSTALEVA, O.N.; CHERVYAKOVA, L., red.; BABICHEVA, V.V., tekhn.red.

[Manual on technological advice and technical specifications for semiprocessed products and dishes of meat, poultry, fish, potatoes, and vegetables] Sbornik tekhnologicheskikh instruktsii i tekhnicheskikh uslovii na polufabrikaty i kulinarnye izdeliia iz miasa, ptitsy, ryby, kartofelia i ovoshchei. Moskva, Gos.izd-vo torg. lit-ry, 1958. 101 p. (MIRA 13:4)

1. Russia (1923- U.S.S.R.).Ministerstvo torgovli.
(Food industry) (Cookery)

ABATUROV, P.V.; GROZNOV, S.R.; GANETSKIY, I.D.; KOZYREVA, Ye.A.; NOVITSKAYA, L.A.; ODINTSOV, A.I.; PROTOPOPOV, S.I.; SIDOROV, V.A.; SIDOROVA, L.I.; TROFIMOVA, V.I.; TRUSHINA, I.V.; SHTEYMAN, R.A.; DUNTSOVA, K.G., red.; KAZENOVA, A.R., red.; MARSHAK, M.S., prof., red.; MOLCHANOVA, O.P., prof., red.; SALOMATINA, K.Z., red.; KAGANOVA, A.A., redl; MEDRISH, D.M., tekhn. red.

[Dietetic cookery in eating establishments]Dieticheskoe pitanie v stolovykh; sbornik retseptur i tekhnologiia prigotovleniia bliud. Moskva, Gos.izd-vo torg.lit-ry, 1962. 262 p. (MIRA 16:1)

1. Russia (1917- R.S.F.S.R.)Ministerstvo torgovli.
(COOKERY FOR THE SICK)

L 16199-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS/ES(s)-2--AFFTC/ASD/SSD--
Ps-4/Pc-4/Pr-4/Pt-4--RM/WW/MAY
ACCESSION NR: AP3006534 S/0191/63/000/009/0017/0019

AUTHOR: Medvedeva, P. A.; Ry*bkina, O. Ya.; Duntova, L. K.; Gavrilova, G. A.; Gavurina, R. K.

TITLE: Self-extinguishing glass-reinforced plastics based on epoxy-polyester resins

SOURCE: Plasticheskiy massy*, no. 9, 1963, 17-19

TOPIC TAGS: glass fabric reinforced plastic, binder unsaturated polyester, unsaturated polyester resin, TKhF, ChF, AF, styrenated polyester, epoxy resin, ED-5, ED-6, self-extinguishing, chlorine-containing polyester, chlorine-containing curing agent, reinforcement, satin weave glass fabric, glass fabric, ASTT(b)S_2-5/3, ASTT(b)S_2-8/3, organosilicon finish, GVS-9 finish, coupling agent, glass fabric lay-up, antimony oxide, mechanical strength, bending strength, thermal stability, moisture effect, temperature effect, moisture, temperature

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ACCESSION NR: AP3006534

6

ABSTRACT: Self-extinguishing glass-fabric-reinforced plastics have been prepared with mixtures of epoxy and unsaturated polyester resins as binders. Self-extinguishing properties were imparted by introducing chlorine into the polyester [method unspecified] or by using a chlorine-containing curing agent [unspecified]. Styrenated TKhF, ChF, or AF polyesters and ED-5 or ED-6 epoxy resins, mixed in various ratios (generally 2 parts polyester to 1 part ED-5), were used as binders; satin-weave fabrics ASTT(b)S_2—5/3, ASTT(b)S_2—8/3, or ASTT(b)S_2—8/3 finished with the GVS-9 organisilicon coupling agent, served as reinforcements. The glass-fabric sheets were laid up at right angles to each other to impart multidirectional strength to the plastic. 3.5—4.5% Sb_2O_3 was added to the binder. The results of a study of the properties of the plastics, given in the form of tables, show that glass-fabric—reinforced plastics thus prepared are self-extinguishing. They exhibit high mechanical strength (binding strength σ_B = 3800—4400 kg/cm^2) and high thermal stability. The strength of these plastics (especially of those reinforced with ASTT(b)S_2—8/3 GVS-9) drops only slightly under the effect of moisture (σ_B = 3280—4200 kg/cm^2) and temperatures up to 60C (σ_B = 3200 -- 4000 kg/cm2). Orig art. has: 5 tables.

Card 2/3

TROFIMOVA, V.I., nauchnyy sotr.; SHTEYMAN, R.A., nauchnyy sotr.; GROZNOV, S.R., nauchnyy sotr.; SIDOROVA, L.I., nauchnyy sotr.; DUNTSOVA, V.G.; KAZENOVA, A.R.; PROTOPOPOV, S.I.; SHORIN, G.F., red.; LOBANOV, D.I., red.; MOLCHANOV, O.P., red.; MARTYNOVA, Ye.G., red.; SIDOROV, V.A., red.; TIMATKOV, V.D., red.; VAGANOVA, N.A., red.; BABICEVA, V.V., tekhn. red.

[Collected recipes of dishes for workers and students] Sbornik retseptur bliud dlia pitaniia rabochikh i studentov. 2. perer.,dop. izd. Moskva, Gos.izd-vo torg.lit-ry, 1961. 491 p. (MIRA 15:1)

1. Russia (1917- R.S.F.S.R.) Ministerstvo torgovli. 2. Nauchno-issledovatel'skiy institut torgovli i obshchestvennogo pitaniya (for Trofimova, Shteyman, Groznov, Sidorova). 3. Upravleniye obshchestvennogo pitaniya Ministerstva torgovli RSFSR (for Duntsova, Kazenova). 4. Glavnyy kulinar Upravleniya obshchestvennogo pitaniya Ministerstva torgovli RSFSR (for Protopopov).
(Cookery)

16.3000

28680
S/021/60/000/007/003/009
D211/D305

AUTHOR: Dunduchenko, L.O., and Kas'yanyuk, S.A.

TITLE: Some properties of analytical functions with a positive real part in a circular ring

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 7, 1960, 878 - 882

TEXT: Definitions: $C_q(h + ik)$ is the class of functions regular in $K_z(q; 1) \equiv [0 < q < |z| < 1]$ with positive real part $\mathrm{Re}\, f(z) > 0$, $q < |z| < 1$ and satisfying condition

$$\frac{1}{2\pi i} \cdot \int_{|z|=\rho} \frac{f(z)}{z}\, dz = h + ik, \quad h > 0, \quad q < \rho < 1. \qquad (2)$$

$C_q^{\alpha}(\ )$ is the class of function regular in $K_z(q; 1)$ for which

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$$\frac{1}{2\pi i} \cdot \int_{/z/=\rho} \frac{f(z)}{z}\, dz = 1, \quad q < \rho < 1 \qquad (3)$$

and such that

$$\mathrm{Re}\ f(z) > 1 - \alpha, \quad 0 < \alpha < 1, \quad q < /z/ < 1. \qquad (4)$$

M is the class of real functions $\mu(\theta)$ non-decreasing on the segment $(-\pi; \pi)$ such that

$$\mu(-\pi) = \mu(-\pi + 0) = 0; \int_{-\pi}^{\pi} d\mu(\theta) = 2\pi. \qquad (5)$$

Using the results of work by V.A. Zmorovych (Ref. 1: Matem. Sb. 32 74; 3, 633, 1953) the two following theorems can be proved: Theorem 1: The necessary and sufficient condition that functions f(z) belongs to the class $C_q^o(h + ik)$ is that the function could be represented as follows:

Some properties of analytical ...

$$f(z) = \frac{h}{2\pi} \int_{-\pi}^{\pi} F(ze^{-i\theta})\, d\mu_1(\theta) + \frac{h}{2\pi} \int_{-\pi}^{\pi} F\left(\frac{q}{z} e^{i\theta}\right) d\mu_2(\theta) = h + ik, \tag{6}$$

where $\mu_1(\theta) \in M$, $\mu_2(\theta) \in M$ and

$$F(z) = \frac{1+z}{1-z} + 2\sum_{k=1}^{+\infty} \frac{q^{2k}}{1-q^{2k}} \left(z^k - \frac{1}{z^k}\right), \tag{7}$$

where integrals taken are in the Stieltjes sense. Corollary 1. The necessary and sufficient condition that the function f(z) belongs to the class $C_q^{\alpha}(1)$ is that it could be expressed as follows:

$$f(z) = \frac{\alpha}{2\pi} \int_{-\pi}^{\pi} F(ze^{-i\theta})\, d\mu_1(\theta) + \frac{\alpha}{2\pi} \int_{-\pi}^{\pi} F\left(\frac{q}{z} e^{i\theta}\right) d\mu_2(\theta) + 1 - 2\alpha. \tag{8}$$

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The Lauran's expansion of function f(z) is then

$$f(z) = \sum_{n=-\infty}^{+\infty} a_n z^n = \tag{9}$$
$$= \ldots + \frac{a_{-n}}{z^n} + \ldots + \frac{a_{-1}}{z} + 1 + a_1 z + \ldots + a_n z^n + \ldots$$

Theorem 2: If function $f(z) \in C_q^{\alpha}(1)$ then the Lauran's coefficients satisfy inequalities

$$|a_\nu| \leqslant \frac{2\alpha}{|1 - q^\nu|}, \quad \nu = \pm 1, \pm 2, \ldots \tag{10}$$

The equality holds for functions

$$f_0(z) = 1 - 2\alpha + \alpha F(ze^{-i\beta}) + \alpha F(\frac{q}{z} e^{i\gamma}) \tag{11}$$

in the points $\beta = 0$ and $\gamma = \pi/n$ for $V = n$, $\beta = \pi/n$ and $\gamma = 0$ for $V = -n$ for each fixed ν. Using the variation method of V.A.

Some properties of analytical ...

Zmorovych (Ref. 2: Ukr. Matem. Zhurn., 4, 276, 1952) four additional theorems are proved: The author also gives the functions for which the equality holds. If q tends to infinity, all theorems pass into a well-known theorem in a region $|z| < 1$, for regular functions with a positive real part. There are 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: J.E. Littlewood, Lectures on the Theory of Functions, Oxford Univ. Press, 1944.

ASSOCIATION: Zaporiz'kyy mashynobudivnyy instytut (Institute for Machine-building, Zaporoshe)

PRESENTED: by B.V. Hnyedenko, Academician AS UkrSSR

SUBMITTED: November 23, 1959

Card 5/5

DUN'YE, L.V., kand.med.nauk

Complications and dangers in subtotal resection of thyrotoxic goiter and during the postoperational period. Trudy LPMI 31 no.2:86-93 '63. (MIRA 17:10)

1. Iz khirurgicheskoy propedevticheskoy kliniki Leningradskogo pediatricheskogo meditsinskogo instituta.

DUNDUCHENKO, L.Ye. [Dunduchenko, L.O.]; KAS'YANYUK, S.A. [Kas'ianiuk, S.A.]

Regular functions with a positive real part in the ellipse [with summary in English]. Dop. AN URSR no.2:147-150 '62. (MIRA 15:2)

1. Zaporozhskiy mashinostroitel'nyy institut. Predstavleno akademikom AN USSR Yu.A.Mitropol'skim [Mytropol's'kyi, IU.O.]
(Functions)

6(0); 9(0) SOV/112-59-5-9916

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 212 (USSR)

AUTHOR: Dun'ye, V. L., and Khevrunin, I. S.

TITLE: Transmission of a Square Pulse Through a Detuned Oscillatory System That Has a Bell-Shaped Resonance Curve

PERIODICAL: Tekhn. televideniya. M-vo radiotekhn. prom-sti SSSR, 1957, Nr 23, pp 48-57

ABSTRACT: A formula has been derived for computing the envelope of the output voltage of a band filter, that has a bell-shaped resonance curve; transmission of a pulse whose frequency differs from resonant is considered. The solution is based on expressing definite integrals in the form of a series consisting of Kramp's functions or their derivatives:

where $\Phi^{(2n)}\left(\frac{t}{2\sqrt{a}}\right)$ is the Kramp's function derivative;

Card 1/2

Transmission of a Square Pulse Through a Detuned Oscillatory System That . . . .

$$\Phi(x) = \frac{2}{\sqrt{\pi}} \int_0^x e^{-x^2} dx$$

The fundamental difficulty of calculations with the above formula lies in computing the derivatives of higher orders for the Kramp's function. In the existing tables, the highest derivative order is 20, which is insufficient by far. Some results of calculations have been verified experimentally. Discrepancies do not exceed 25%. They can be explained by the fact that the resonance characteristic has differed from the bell-shaped. The analysis shows that for a higher detuning and for a given Q-factor, the steady-state voltage is lower. A blip appears whose value is higher than the steady-state value. At some detuning values, the output-voltage envelope begins to oscillate. Similar phenomena are observed if the system Q-factor is increased with a fixed non-zero detuning.

S.I.S.

Card 2/2

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6,4770

AUTHORS: Dun'ye, V. L. and Khavrunin, I. S.

TITLE: Passage of radio pulsesthrough a detuned selective channel of radio reception systems.

PERIODICAL: Elektrosvyaz', no. 2, 1960, 20 - 27

TEXT: The amplitude-frequency response of a selective channel is approximated by a bell-shaped curve in the presence of a rectangular pulse, and by a rectangular curve in the presence of a bell-shaped pulse. Formulae are derived giving the envelopes of the output pulses at different values of detuning of the selective channel pass-band and of the pulse duration. This article complements an earlier article of the same authors [Ref. 4: K voprosu o prokhozhdenii pryamougol'nogo radioimpul'sa cherez rasstroyennuyu kolebatel'nuyu sistemu s resonansnoy krivoy kolokol'noy formy. (Passage of a rectangular radio-pulse through a detuned oscillating system with a bell-shaped resonance curve) Tekhnika televideniya No. 23, Gosenergoizdat, M. 1957]. Passage of a rectangular pulse through a detuned selective system with a bell-shaped resonance curve: As shown in the earlier article, the envelope of the output pulse can be expressed as:

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Passage of radio pulse through ....

$$U_{outp}(t') = \frac{E}{2\pi}\left[\int_{-\infty}^{\infty} e^{-a(\Omega+c)^2}\ \frac{\sin\Omega\left(t'+\frac{\tau'}{2}\right)}{\Omega}\,d\Omega - \int_{-\infty}^{\infty} e^{-a(\Omega+c)^2}\ \frac{\sin\Omega\left(t'-\frac{\tau'}{2}\right)}{\Omega}\,d\Omega\right], \quad (1)$$

where the pulse is, this time, determined within the range $-\frac{\tau_0}{2}$ to $+\frac{\tau_0}{2}$. E is here the input-pulse amplitude at $-\frac{\tau_0}{2} < t < \frac{\tau_0}{2}$; $\frac{\omega-\omega_0}{\omega_0} = \Omega$ is the relative passing frequency; $\frac{\omega_1-\omega_0}{\omega_0} = C$ [Abstractor's note: C is apparently a misprint for c] is the relative detuning (between the carrier frequency of the pulse and the resonance frequency of the system), $\omega_0 t = t'$ is the relative current time; $\omega_0\tau_0 = \tau'$ is the relative pulse-duration; $\frac{\omega_0^2}{4\beta_1} = a$ is a parameter proportional to the Q-factor of the system. Magnitude β_1 is determined by:

$$\beta_1 = \frac{\Delta\omega_0^2}{16 \ln d}$$

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Passage of radio pulse through ....

where $\Delta\omega_0$ is the system pass-band at level 1/d from maximum level. Introducing the parameters

$$\left.\begin{aligned} \beta &= \Delta f \tau_0 \\ K &= \frac{a\sqrt{a}}{2\sqrt{\ln d}} \\ t_0 &= \frac{t}{\tau_0} \end{aligned}\right\} \qquad (3)$$

the authors obtain the following expression for (1):

$$U_{outp}(\beta, K; t_0) = \frac{E}{2} e^{-K^2 \ln d} \operatorname{Re}\left\{\phi\left[\frac{\pi\beta(t_0 + 0{,}5)}{2\sqrt{\ln d}} - i\,2K\sqrt{\ln d}\right] - \right.$$
$$\left. -\phi\left[\frac{\pi\beta(t_0 - 0{,}5)}{2\sqrt{\ln d}} - i\,2K\sqrt{\ln d}\right]\right\}. \qquad (5)$$

where $\phi^{(2n)}$ is the 2n-th derivative from the probabilities integral. Direct cal-

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Passage of radio pulse through ....

culation with this formula being very difficult, the authors introduce the function

$$w(z) = e^{-z^2}\left(1 + \frac{2i}{\sqrt{\pi}}\int_0^z e^{t^2}\,dt\right) = u(x,y) + iv(x,y), \qquad (6)$$

where $z = x + iy$. Tables exist, giving the values of $u(x,y)$ and $v(x,y)$ within a sufficiently wide range of z. The solution of (5) takes then the following form:

$$U_{outp}(x, y_1, y_2) = \frac{E}{2}\left\{e^{-y_1^2}\left[u_2(x, y_2)\cos 2xy_2 - v_2(x,y_2)\sin 2xy_2\right] - \right.$$

$$\left. - e^{-y_1^2}\left[u_1(x, y_1)\cos 2xy_1 - v_1(x, y_1)\sin 2xy_1\right]\right\} \qquad (7)$$

where $x = 2K\sqrt{\ln d}$, $y_1 = \frac{\pi\beta}{2\sqrt{\ln d}}(t_0 + 0.5)$, $y_2 = \frac{\pi\beta}{2\sqrt{\ln d}}(t_0 - 0.5)$.

The examination of the graphs corresponding to (7) leads to the following conclusions: When there is no detuning ($K = 0$), the total amplitude of the output pulse and its shape depend on β. For $\beta \approx 1.5$, the output pulse attains the steady-state value, and the pulse-shape approximates a rectangular shape. As β decreases, the total amplitude of the pulse decreases, and the pulse tends to become

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Passage of radio through ....

bell-shaped. Detuning also affects the size and shape of the output pulse. When it increases, the total amplitude of the pulse diminishes, and, from certain values of K upwards, oscillations appear at the pulse-fronts. Passage of a bell-shaped pulse through a detuned selective system with a rectangular frequency response: In an analogous manner, and introducing analogous parameters β, K and t_0, the following formula is obtained for the envelope of the output pulse:

$$U_{outp} = \frac{E}{2} e^{-\omega_0^2 t_0^2 \ln d} \operatorname{Re}\left\{\Phi\left[\frac{\pi\beta(K + 0{,}5)}{2\sqrt{\ln d}} - 12t_0\sqrt{\ln d} - \right.\right.$$
$$\left.\left. - \Phi\left[\frac{\pi\beta(K - 0{,}5)}{2\sqrt{\ln d}} - 12t_0\sqrt{\ln d}\right]\right\} . \qquad (13)$$

which is also expressed through tabulated functions u(x, y) and v(x, y). The analysis of the obtained graphs leads to the following conclusions. The absolute value of the output voltage increases with β and reaches its steady value at $\beta \approx 1.5$ and K = 0. The pulse is not far from being bell-shaped, but at its tails occur damped oscillations whose period is determined by the transmission band-

Card 5/6

Passage of radio pulse through ....
-width of an idealized filter. In the presence of detuning, the absolute value of the total amplitude of the output pulse decreases, and the oscillation amplitude increases. The detuning increase brings about a reduction of the pulse-duration. From certain values of K upwards, the output pulse takes the form of an oscillating voltage whose amplitude and period decrease with further detuning. The effect detuning is the greater, the greater parameter β. There are 6 figures and 5 Soviet-bloc references.

SUBMITTED: May 19, 1959.

[Abstractor's note: One subscript is translated in the text and formulae: "outp" stands for "вых"]

Card 6/6

DUN'YE, V.L.; MAKSHTAS, Ya.P.

Devices for the automatic shaping of pulses on a level not depending on the amplitude of the input signal. Prib. i tekh.eksp. 10 no.5:142-144 S-O '65.

(MIRA 19:1)

1. Submitted July 17, 1964.

DEVLIKAMOV, V.V.; DURYUSHKIN, I.I.; SHAGIYEV, R.G.

Photocolorimetry of the oils of the Mancharova group of oil fields of the Oil Field Administration of the "Chekmagush" Petroleum Trust. Izv. vys. ucheb. zav.; neft' i gaz 7 no.5:35-38 '64. (MIRA 17:9)

1. Ufimskiy neftyanoy institut.

DUOYRIS, G. I.

"X-Ray Diagnostic Study of the Suprarenal Glands With Application of the 'Pneumaren' Method". Thesis for degree of Cand. Medical Sci. Sub 15 Mar 49, Central Inst for the Advanced Trainign of Physicians.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949.

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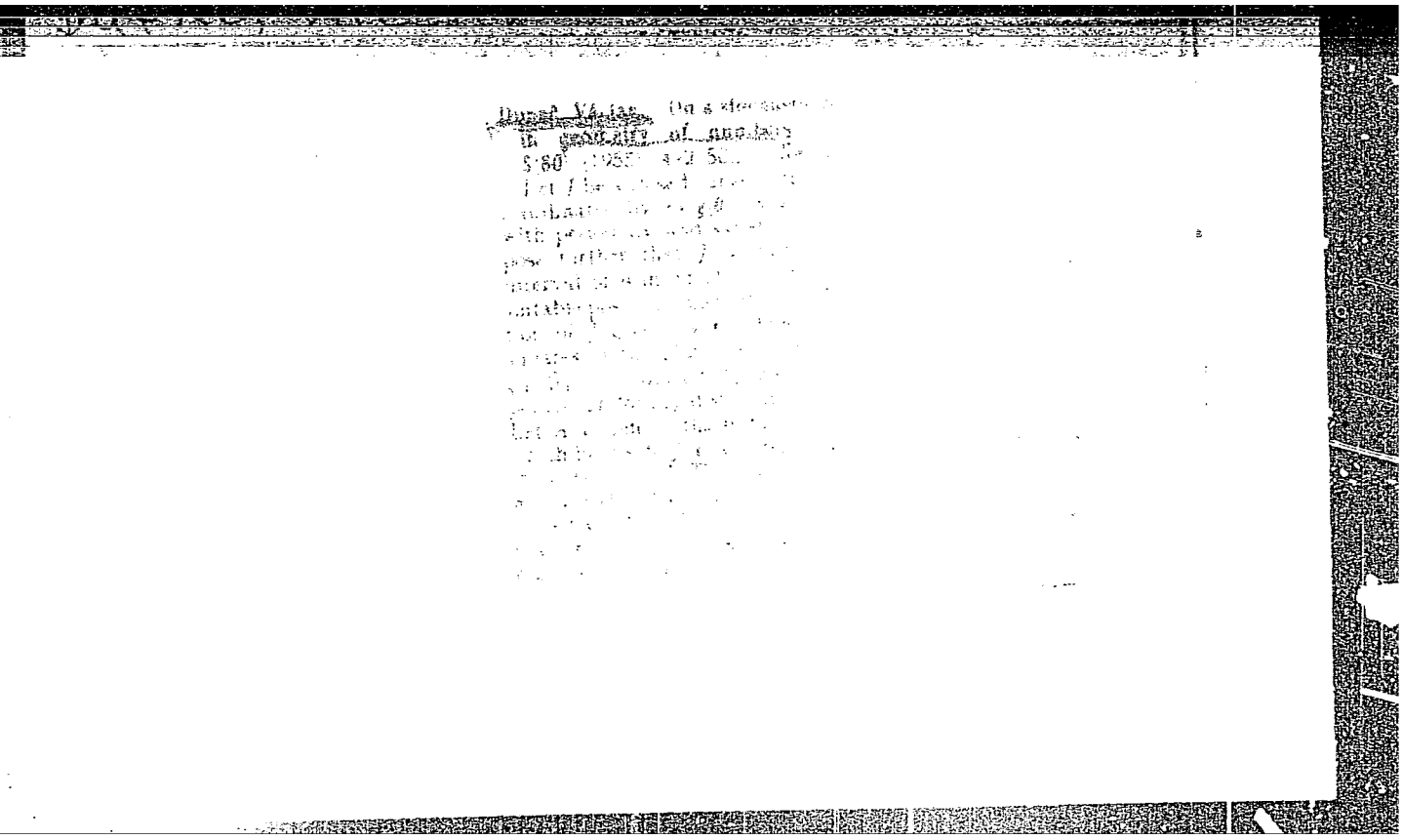
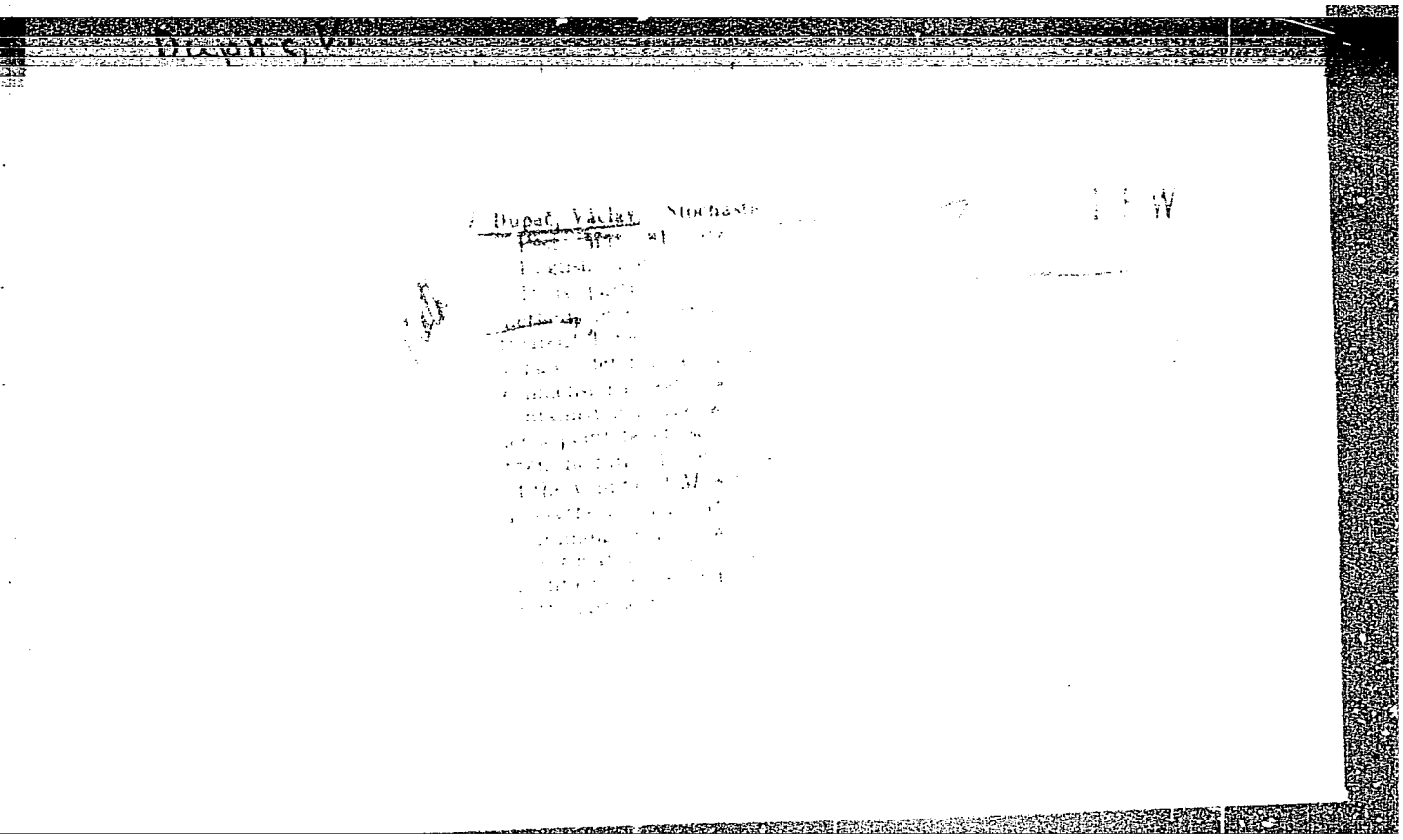
DUPAK, A.S., inzh.

Schools of progressive work practices at the pavilion "Electrification." Energ. i elektrotekh. prom. no.4:72-73 O-D '65.
(MIRA 19:1)





DUPAC, V.

The Kiefer-Wolfowitz approximation method.

P. 47, (Casopis Pro Pestovani Matematiky) Vol. 82, no. 1, Mar. 1957
Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

Dupač, Václav. Notes on stochastic approximation methods. Czechoslovak Math. J. 8(83) (1958), 139–149. (Russian summary)

Asymptotic properties of the Robbins-Monro and the Kiefer-Wolfowitz stochastic approximation methods are studied under the assumption that the solution lies in an a priori known finite interval. It is shown that in this case the conditions under which the approximation procedure has satisfactory asymptotic properties can be considerably weakened. A stochastic approximation method is considered for solving systems of linear equations with a symmetric matrix of coefficients. *J. Janko* (Prague)

Z/026/62/007/001/001/004
D236/D305

AUTHOR: Dupač, Václav

TITLE: Monte Carlo methods

PERIODICAL: Aplikace matematiky, v. 7, no. 1, 1962, 1 - 20

TEXT: This article is a general introduction to the Monte Carlo method, as used in physics, operational research, statistics, and numerical calculus. It shows how the method is applied in these fields, and explains the practical importance of the method. The general principles of the method are formulated, and techniques of correlated sampling are explained. This is followed by an explanation of importance sampling. The author then describes a rejection technique of sampling from given probability distributions. Finally the generating of pseudorandom numbers by the congruential method is given, and some properties of these numbers are explained. There are 33 references: 4 Soviet-bloc and 29 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: R. A. Levine, R. B. Rainey: Random va-

Card 1/2

Monte Carlo methods

riations and sampling models in production economics. Econometrica, 27 (1959), 294-295; R. S. Lehman and G. H. Weiss: A study of the restricted random walk. Jrn. Soc. Ind. Appl. Mathem., 6 (1958), 257-278; H. M. Wagner: A Monte Carlo study of estimates of simultaneous linear structural equations. Econometrica 26 (1958), 117-133; Symposium on Monte Carlo methods, J. Wiley, N. Y., 1956, 89-102, 103-122, 52-62, 80-88, 15-28.

ASSOCIATION: Matematicko-fyzikálni fakulta Karlovy University Praha (Charles University Prague, Faculty for Mathematics and Physics)

SUBMITTED: January 16, 1961

Card 2/2

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Pavilion "Electrification." Energ. i elektrotekh. prom. no.1:6-7 Ja-Mr '65. (MIRA 18:5)

DUPAL, J.; BARTUNEK, J.

Formation of prices of agricultural products. p. 659.

SBORNIK. ZEMEDELSKA EKONOMIKA. Praha, Czechoslovakia. Vol. 5, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.